Inventor Search

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NO

L9 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:790244 HCAPLUS
DOCUMENT NUMBER: 133:330929
TITLE: Chemical compositions that **attract mosquitoes**
INVENTOR(S): Bernier, Ulrich R.; **Kline, Daniel L.**; Barnard, Donald R.; Booth, Matthew M.; Yost, Richard A.
PATENT ASSIGNEE(S): The United States of America, as Represented by the Secretary of Agriculture, USA; University of Florida
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000065910	A1	20001109	WO 2000-US11375	20000428
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6267953	B1	20010731	US 1999-304362	19990504
EP 1175147	A1	20020130	EP 2000-928490	20000428
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002028191	A1	20020307	US 2001-848236	20010504

PRIORITY APPLN. INFO.: US 1999-304362 A 19990504
WO 2000-US11375 W 20000428

AB Compns. for **attracting mosquitoes** comprise a compd. HO2C-[X-C-Y]n-Z (X = H, halo, OH, SH, oxo, (C1-8)alkyl;Y = H, (C1-8)alkyl; Z = H, OH, SH, COOH, (C1-8)alkyl; n = 1 to 10) and salts thereof, and a compd. consisting of a (C3-10)ketone, carbon dioxide, (C2-10)alkene, (C1-10)aldehyde, (C1-8)alc., (C1-8)halogenated compd., (C2-4)nitrile, (C3-10)ether, (C6-10)aryl, (C1-8)sulfide, (C3-10)heterocyclic compd., and salts thereof.

IT **50-00-0D**, Formaldehyde, mixt. contg., biological studies **56-23-5D**, Carbon tetrachloride, mixt. contg. **60-29-7D**, Diethyl ether, mixt. contg. **64-17-5D**, Ethanol, mixt. contg., biological studies **67-56-1D**, Methanol, mixt. contg., biological studies **67-64-1D**, Acetone, mixt. contg. **67-66-3D**, Chloroform, mixt. contg. **67-68-5D**, Dimethyl sulfoxide, mixt. contg. **71-55-6D**, 1,1,1-Trichloroethane, mixt. contg. **75-05-8D**, Acetonitrile, mixt. contg., biological studies **75-07-0**, Acetaldehyde, biological studies **75-09-2D**, Methylene chloride, mixt. contg. **75-15-0D**, Carbon disulfide, mixt. contg., biological studies **75-18-3D**, Dimethyl sulfide, mixt. contg. **75-25-2D**, Bromoform, mixt. contg. **78-70-6D**, Linalool, mixt. contg. **78-79-5D**, Isoprene, mixt. contg. **78-84-2D**, Isobutyraldehyde, mixt. contg. **78-93-3D**, 2-Butanone, mixt. contg., biological studies **78-94-4D**,

3-Buten-2-one, mixt. contg., biological studies **79-01-6D**, Trichloroethylene, mixt. contg. **79-09-4D**, Propanoic acid, mixt. contg., biological studies **79-14-1D**, Glycolic acid, mixt. contg. **79-33-4**, L-Lactic acid, biological studies **79-42-5D**, Thiolactic acid, mixt. contg. **87-69-4D**, Tartaric acid, mixt. contg., biological studies **96-22-0D**, 3-Pentanone, mixt. contg. **98-00-0D**, Furfuryl alcohol, mixt. contg. **98-86-2D**, Acetophenone, mixt. contg. **100-47-0D**, Benzonitrile, mixt. contg., biological studies **100-52-7D**, Benzaldehyde, mixt. contg., biological studies **106-35-4D**, 3-Heptanone, mixt. contg. **106-44-5D**, p-Cresol, mixt. contg. **107-87-9D**, 2-Pentanone, mixt. contg. **108-10-1D**, 4-Methyl-2-pentanone, mixt. contg. **108-88-3D**, Toluene, mixt. contg. **109-87-5D**, Dimethoxymethane, mixt. contg. **110-02-1D**, Thiophene, mixt. contg. **110-43-0D**, 2-Heptanone, mixt. contg. **110-81-6D**, Diethyl disulfide, mixt. contg. **110-93-0D**, 6-Methyl-5-hepten-2-one, mixt. contg. **111-13-7D**, 2-Octanone, mixt. contg. **111-66-0D**, 1-Octene, mixt. contg. **123-19-3D** , 4-Heptanone, mixt. contg. **123-54-6D**, 2,4-Pentanedione, mixt. contg., biological studies **123-72-8D**, Butyraldehyde, mixt. contg. **124-11-8D**, 1-Nonene, mixt. contg. **124-19-6D**, Nonanal, mixt. contg. **124-38-9D**, Carbon dioxide, mixt. contg., biological studies **127-17-3D**, Pyruvic acid, mixt. contg. **140-29-4D**, Phenylacetonitrile, mixt. contg. **352-93-2D**, Diethyl sulfide, mixt. contg. **431-03-8D**, 2,3-Butanedione, mixt. contg. **502-56-7D**, 5-Nonanone, mixt. contg. **504-20-1**, Phorone **513-86-0D**, 3-Hydroxy-2-butanone, mixt. contg. **534-22-5D**, 2-Methylfuran, mixt. contg. **545-06-2D**, Trichloroacetonitrile, mixt. contg. **563-80-4D**, 3-Methyl-2-butanone, mixt. contg. **565-61-7D**, 3-Methyl-2-pentanone, mixt. contg. **565-69-5D**, 2-Methyl-3-pentanone, mixt. contg. **589-38-8D**, 3-Hexanone, mixt. contg. **591-78-6D**, 2-Hexanone, mixt. contg. **592-76-7D**, 1-Heptene, mixt. contg. **624-92-0D**, Dimethyl disulfide, mixt. contg. **625-33-2D**, 3-Penten-2-one, mixt. contg. **627-50-9D** , Ethyl vinyl sulfide, mixt. contg. **693-54-9D**, 2-Decanone, mixt. contg. **821-55-6D**, 2-Nonanone, mixt. contg. **925-78-0D**, 3-Nonanone, mixt. contg. **1629-58-9D**, 1-Penten-3-one, mixt. contg. **2179-60-4D**, Methyl propyl disulfide, mixt. contg. **3658-80-8D**, Dimethyl trisulfide, mixt. contg. **4938-52-7D** , 1-Hepten-3-ol, mixt. contg. **10326-41-7**, D-Lactic acid, biological studies **18402-83-0D**, E-3-Nonen-2-one, mixt. contg.
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304441-50-7 304441-51-8 304441-52-9
304441-53-0 304441-54-1 304441-55-2
304441-56-3 304441-57-4 304441-58-5
304441-59-6 304441-60-9 304441-61-0
304441-62-1 304441-63-2 304441-64-3
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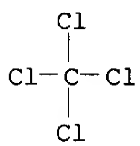
304441-68-7 304441-69-8 304441-70-1,
biological studies **304441-71-2 304441-72-3**
304441-73-4 304441-74-5 304441-75-6
304441-76-7 304441-77-8 304441-78-9
304441-79-0 304441-80-3 304441-81-4
304441-82-5 304441-83-6 304441-84-7
304441-85-8 304441-86-9 304441-87-0
304441-88-1 304441-89-2 304441-90-5
304441-91-6 304441-92-7 304441-93-8
304441-94-9 304441-95-0 304441-96-1

304646-90-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**mosquito attractant**)

RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

$H_2C{=}O$

RN 56-23-5 HCAPLUS
CN Methane, tetrachloro- (9CI) (CA INDEX NAME)



RN 60-29-7 HCAPLUS
CN Ethane, 1,1'-oxybis- (9CI) (CA INDEX NAME)

$H_3C-CH_2-O-CH_2-CH_3$

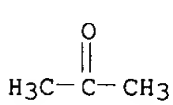
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

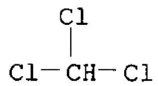
RN 67-56-1 HCAPLUS
CN Methanol (8CI, 9CI) (CA INDEX NAME)

H_3C-OH

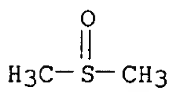
RN 67-64-1 HCAPLUS
CN 2-Propanone (9CI) (CA INDEX NAME)



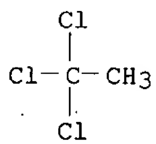
RN 67-66-3 HCAPLUS
CN Methane, trichloro- (9CI) (CA INDEX NAME)



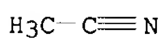
RN 67-68-5 HCAPLUS
CN Methane, sulfinylbis- (9CI) (CA INDEX NAME)



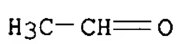
RN 71-55-6 HCAPLUS
CN Ethane, 1,1,1-trichloro- (8CI, 9CI) (CA INDEX NAME)



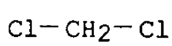
RN 75-05-8 HCAPLUS
CN Acetonitrile (8CI, 9CI) (CA INDEX NAME)



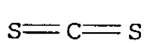
RN 75-07-0 HCAPLUS
CN Acetaldehyde (8CI, 9CI) (CA INDEX NAME)



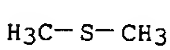
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



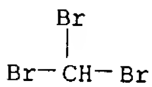
RN 75-15-0 HCAPLUS
CN Carbon disulfide (8CI, 9CI) (CA INDEX NAME)



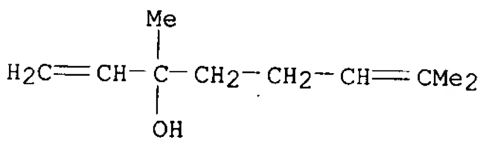
RN 75-18-3 HCAPLUS
CN Methane, thiobis- (9CI) (CA INDEX NAME)



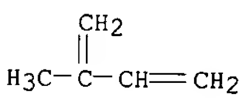
RN 75-25-2 HCAPLUS
CN Methane, tribromo- (8CI, 9CI) (CA INDEX NAME)



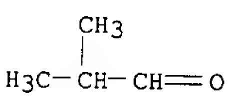
RN 78-70-6 HCAPLUS
CN 1,6-Octadien-3-ol, 3,7-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)



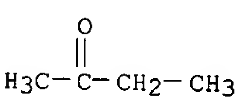
RN 78-79-5 HCAPLUS
CN 1,3-Butadiene, 2-methyl- (9CI) (CA INDEX NAME)



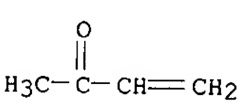
RN 78-84-2 HCAPLUS
CN Propanal, 2-methyl- (9CI) (CA INDEX NAME)



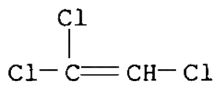
RN 78-93-3 HCAPLUS
CN 2-Butanone (8CI, 9CI) (CA INDEX NAME)



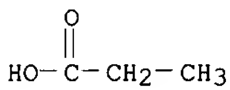
RN 78-94-4 HCAPLUS
CN 3-Buten-2-one (8CI, 9CI) (CA INDEX NAME)



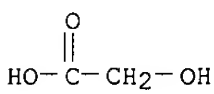
RN 79-01-6 HCAPLUS
CN Ethene, trichloro- (9CI) (CA INDEX NAME)



RN 79-09-4 HCAPLUS
CN Propanoic acid (9CI) (CA INDEX NAME)

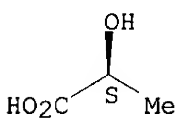


RN 79-14-1 HCAPLUS
CN Acetic acid, hydroxy- (9CI) (CA INDEX NAME)

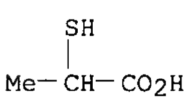


RN 79-33-4 HCAPLUS
CN Propanoic acid, 2-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

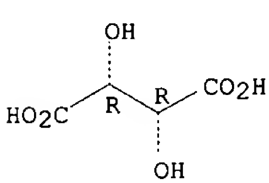


RN 79-42-5 HCAPLUS
CN Propanoic acid, 2-mercapto- (9CI) (CA INDEX NAME)

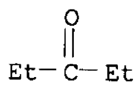


RN 87-69-4 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (9CI) (CA INDEX NAME)

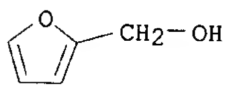
Absolute stereochemistry.



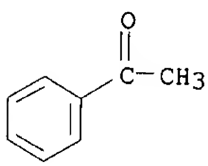
RN 96-22-0 HCAPLUS
CN 3-Pentanone (8CI, 9CI) (CA INDEX NAME)



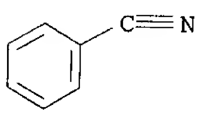
RN 98-00-0 HCAPLUS
CN 2-Furanmethanol (9CI) (CA INDEX NAME)



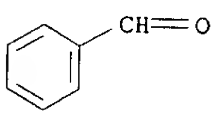
RN 98-86-2 HCAPLUS
CN Ethanone, 1-phenyl- (9CI) (CA INDEX NAME)



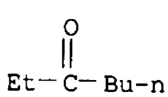
RN 100-47-0 HCAPLUS
CN Benzonitrile (8CI, 9CI) (CA INDEX NAME)



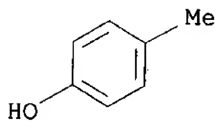
RN 100-52-7 HCAPLUS
CN Benzaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 106-35-4 HCAPLUS
CN 3-Heptanone (8CI, 9CI) (CA INDEX NAME)



RN 106-44-5 HCAPLUS
CN Phenol, 4-methyl- (9CI) (CA INDEX NAME)



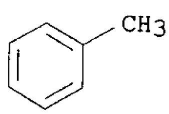
RN 107-87-9 HCAPLUS
CN 2-Pentanone (8CI, 9CI) (CA INDEX NAME)

```
     O
     ||
Me—C—Pr-n
```

RN 108-10-1 HCAPLUS
CN 2-Pentanone, 4-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

```
     O
     ||
Me—C—Bu-i
```

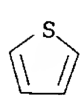
RN 108-88-3 HCAPLUS
CN Benzene, methyl- (9CI) (CA INDEX NAME)



RN 109-87-5 HCAPLUS
CN Methane, dimethoxy- (8CI, 9CI) (CA INDEX NAME)

$H_3C—O—CH_2—O—CH_3$

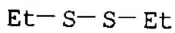
RN 110-02-1 HCAPLUS
CN Thiophene (8CI, 9CI) (CA INDEX NAME)



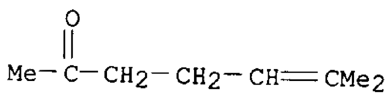
RN 110-43-0 HCAPLUS
CN 2-Heptanone (8CI, 9CI) (CA INDEX NAME)

```
     O
     ||
Me—C—(CH2)4—Me
```

RN 110-81-6 HCAPLUS
CN Disulfide, diethyl (9CI) (CA INDEX NAME)



RN 110-93-0 HCAPLUS
CN 5-Hepten-2-one, 6-methyl- (8CI, 9CI) (CA INDEX NAME)



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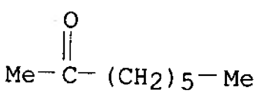
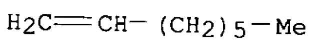
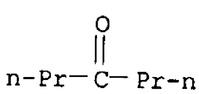
CN 2-Octanone (8CI, 9CI) (CA INDEX NAME)



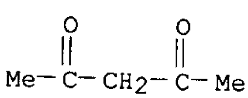
RN 111-66-0 HCAPLUS
CN 1-Octene (8CI, 9CI) (CA INDEX NAME)



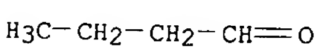
RN 123-19-3 HCAPLUS
CN 4-Heptanone (8CI, 9CI) (CA INDEX NAME)



RN 123-54-6 HCAPLUS
CN 2,4-Pentanedione (8CI, 9CI) (CA INDEX NAME)



RN 123-72-8 HCAPLUS
CN Butanal (9CI) (CA INDEX NAME)



RN 124-11-8 HCAPLUS
CN 1-Nonene (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

$H_2C{=}CH-(CH_2)_6-Me$

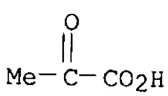
RN 124-19-6 HCAPLUS
CN Nonanal (8CI, 9CI) (CA INDEX NAME)

$Me-(CH_2)_7-CHO$

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)

$O{=}C{=}O$

RN 127-17-3 HCAPLUS
CN Propanoic acid, 2-oxo- (9CI) (CA INDEX NAME)



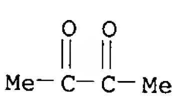
RN 140-29-4 HCAPLUS
CN Benzeneacetonitrile (9CI) (CA INDEX NAME)

$Ph-CH_2-CN$

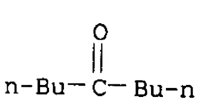
RN 352-93-2 HCAPLUS
CN Ethane, 1,1'-thiobis- (9CI) (CA INDEX NAME)

$H_3C-CH_2-S-CH_2-CH_3$

RN 431-03-8 HCAPLUS
CN 2,3-Butanedione (8CI, 9CI) (CA INDEX NAME)

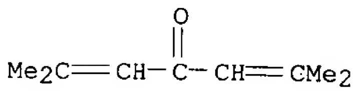


RN 502-56-7 HCAPLUS
CN 5-Nonanone (6CI, 8CI, 9CI) (CA INDEX NAME)

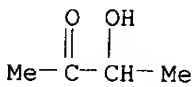


RN 504-20-1 HCAPLUS

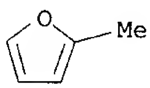
CN 2,5-Heptadien-4-one, 2,6-dimethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



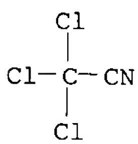
RN 513-86-0 HCAPLUS
CN 2-Butanone, 3-hydroxy- (8CI, 9CI) (CA INDEX NAME)



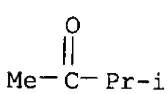
RN 534-22-5 HCAPLUS
CN Furan, 2-methyl- (8CI, 9CI) (CA INDEX NAME)



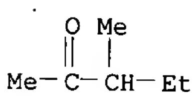
RN 545-06-2 HCAPLUS
CN Acetonitrile, trichloro- (8CI, 9CI) (CA INDEX NAME)



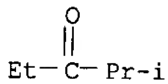
RN 563-80-4 HCAPLUS
CN 2-Butanone, 3-methyl- (8CI, 9CI) (CA INDEX NAME)



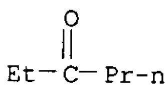
RN 565-61-7 HCAPLUS
CN 2-Pentanone, 3-methyl- (8CI, 9CI) (CA INDEX NAME)



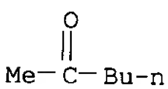
RN 565-69-5 HCAPLUS
CN 3-Pentanone, 2-methyl- (8CI, 9CI) (CA INDEX NAME)



RN 589-38-8 HCAPLUS
CN 3-Hexanone (8CI, 9CI) (CA INDEX NAME)



RN 591-78-6 HCAPLUS
CN 2-Hexanone (8CI, 9CI) (CA INDEX NAME)



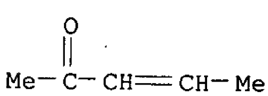
RN 592-76-7 HCAPLUS
CN 1-Heptene (8CI, 9CI) (CA INDEX NAME)

$H_2C{=}CH{-}(CH_2)_4{-}Me$

RN 624-92-0 HCAPLUS
CN Disulfide, dimethyl (9CI) (CA INDEX NAME)

$H_3C{-}S{-}S{-}CH_3$

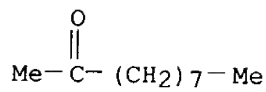
RN 625-33-2 HCAPLUS
CN 3-Penten-2-one (8CI, 9CI) (CA INDEX NAME)



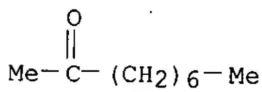
RN 627-50-9 HCAPLUS
CN Ethene, (ethylthio)- (9CI) (CA INDEX NAME)

$H_3C{-}CH_2{-}S{-}CH{=}CH_2$

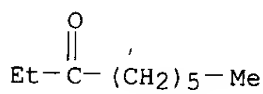
RN 693-54-9 HCAPLUS
CN 2-Decanone (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



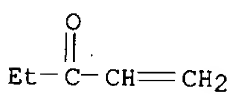
RN 821-55-6 HCAPLUS
CN 2-Nonanone (6CI, 8CI, 9CI) (CA INDEX NAME)



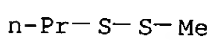
RN 925-78-0 HCAPLUS
CN 3-Nonanone (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



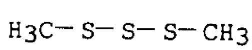
RN 1629-58-9 HCAPLUS
CN 1-Penten-3-one (7CI, 8CI, 9CI) (CA INDEX NAME)



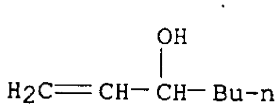
RN 2179-60-4 HCAPLUS
CN Disulfide, methyl propyl (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 3658-80-8 HCAPLUS
CN Trisulfide, dimethyl (9CI) (CA INDEX NAME)

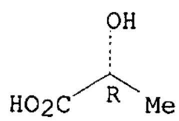


RN 4938-52-7 HCAPLUS
CN 1-Hepten-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



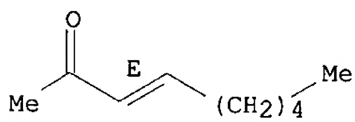
RN 10326-41-7 HCAPLUS
CN Propanoic acid, 2-hydroxy-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 18402-83-0 HCAPLUS
CN 3-Nonen-2-one, (3E)- (9CI) (CA INDEX NAME)

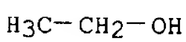
Double bond geometry as shown.



RN 77281-54-0 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with ethanol (9CI) (CA INDEX NAME)

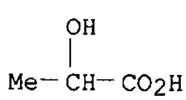
CM 1

CRN 64-17-5
CMF C2 H6 O



CM 2

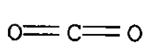
CRN 50-21-5
CMF C3 H6 O3



RN 259734-99-1 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with carbon dioxide (9CI) (CA INDEX NAME)

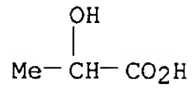
CM 1

CRN 124-38-9
CMF C O2



CM 2

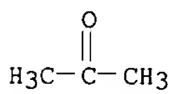
CRN 50-21-5
CMF C3 H6 O3



RN 304441-46-1 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 2-propanone (9CI) (CA INDEX NAME)

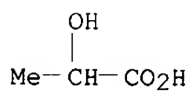
CM 1

CRN 67-64-1
CMF C3 H6 O



CM 2

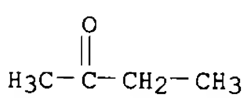
CRN 50-21-5
CMF C3 H6 O3



RN 304441-47-2 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 2-butanone (9CI) (CA INDEX NAME)

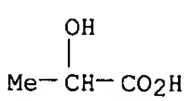
CM 1

CRN 78-93-3
CMF C4 H8 O



CM 2

CRN 50-21-5
CMF C3 H6 O3

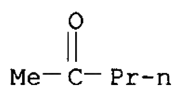


RN 304441-48-3 HCAPLUS

CN Propanoic acid, 2-hydroxy-, mixt. with 2-pentanone (9CI) (CA INDEX NAME)

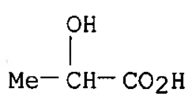
CM 1

CRN 107-87-9
CMF C5 H10 O



CM 2

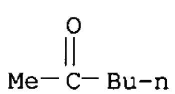
CRN 50-21-5
CMF C3 H6 O3



RN 304441-49-4 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 2-hexanone (9CI) (CA INDEX NAME)

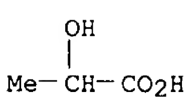
CM 1

CRN 591-78-6
CMF C6 H12 O



CM 2

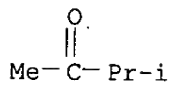
CRN 50-21-5
CMF C3 H6 O3



RN 304441-50-7 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 3-methyl-2-butanone (9CI) (CA INDEX NAME)

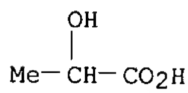
CM 1

CRN 563-80-4
CMF C5 H10 O



CM 2

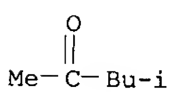
CRN 50-21-5
CMF C3 H6 O3



RN 304441-51-8 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 4-methyl-2-pentanone (9CI) (CA INDEX NAME)

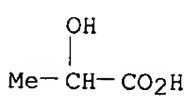
CM 1

CRN 108-10-1
CMF C6 H12 O



CM 2

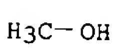
CRN 50-21-5
CMF C3 H6 O3



RN 304441-52-9 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with methanol (9CI) (CA INDEX NAME)

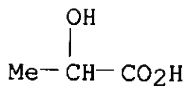
CM 1

CRN 67-56-1
CMF C H4 O



CM 2

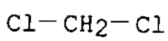
CRN 50-21-5
CMF C3 H6 O3



RN 304441-53-0 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with dichloromethane (9CI) (CA INDEX NAME)

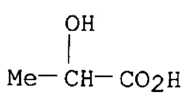
CM 1

CRN 75-09-2
CMF C H2 Cl2



CM 2

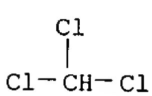
CRN 50-21-5
CMF C3 H6 O3



RN 304441-54-1 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with trichloromethane (9CI) (CA INDEX NAME)

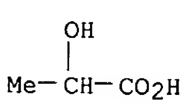
CM 1

CRN 67-66-3
CMF C H Cl3



CM 2

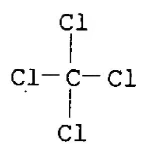
CRN 50-21-5
CMF C3 H6 O3



RN 304441-55-2 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with tetrachloromethane (9CI) (CA INDEX NAME)

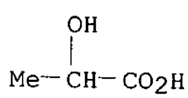
CM 1

CRN 56-23-5
CMF C Cl4



CM 2

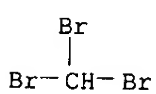
CRN 50-21-5
CMF C3 H6 O3



RN 304441-56-3 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with tribromomethane (9CI) (CA INDEX NAME)

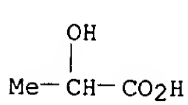
CM 1

CRN 75-25-2
CMF C H Br3



CM 2

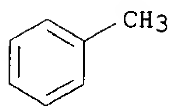
CRN 50-21-5
CMF C3 H6 O3



RN 304441-57-4 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with methylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 108-88-3
CMF C7 H8



CM 2

CRN 50-21-5
CMF C3 H6 O3

OH
|
Me— CH— CO_2H

RN 304441-58-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with acetonitrile (9CI) (CA INDEX NAME)

CM 1

CRN 75-05-8
CMF C2 H3 N

$H_3C—C≡N$

CM 2

CRN 50-21-5
CMF C3 H6 O3

OH
|
Me— CH— CO_2H

RN 304441-59-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with benzeneacetonitrile (9CI) (CA INDEX NAME)

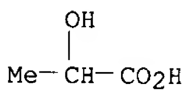
CM 1

CRN 140-29-4
CMF C8 H7 N

Ph—CH_2—CN

CM 2

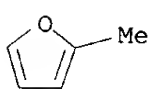
CRN 50-21-5
CMF C3 H6 O3



RN 304441-60-9 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 2-methylfuran (9CI) (CA INDEX NAME)

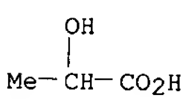
CM 1

CRN 534-22-5
CMF C5 H6 O



CM 2

CRN 50-21-5
CMF C3 H6 O3



RN 304441-61-0 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with carbon disulfide (9CI) (CA INDEX NAME)

CM 1

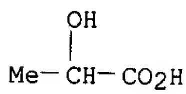
CRN 75-15-0
CMF C S2

S═C═S

CM 2

CRN 50-21-5

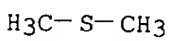
CMF C3 H6 O3



RN 304441-62-1 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with thiobis[methane] (9CI) (CA INDEX NAME)

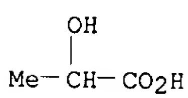
CM 1

CRN 75-18-3
CMF C2 H6 S



CM 2

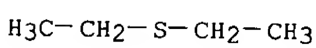
CRN 50-21-5
CMF C3 H6 O3



RN 304441-63-2 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 1,1'-thiobis[ethane] (9CI) (CA INDEX NAME)

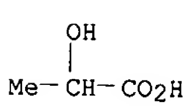
CM 1

CRN 352-93-2
CMF C4 H10 S



CM 2

CRN 50-21-5
CMF C3 H6 O3

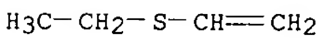


RN 304441-64-3 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with (ethylthio)ethene (9CI) (CA INDEX

NAME)

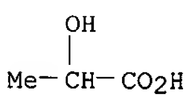
CM 1

CRN 627-50-9
CMF C4 H8 S



CM 2

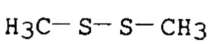
CRN 50-21-5
CMF C3 H6 O3



RN 304441-65-4 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with dimethyl disulfide (9CI) (CA INDEX NAME)

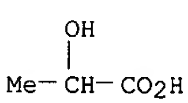
CM 1

CRN 624-92-0
CMF C2 H6 S2



CM 2

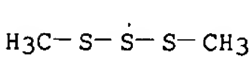
CRN 50-21-5
CMF C3 H6 O3



RN 304441-66-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with dimethyl trisulfide (9CI) (CA INDEX NAME)

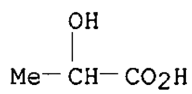
CM 1

CRN 3658-80-8
CMF C2 H6 S3



CM 2

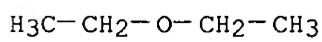
CRN 50-21-5
CMF C3 H6 O3



RN 304441-67-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 1,1'-oxybis[ethane] (9CI) (CA INDEX NAME)

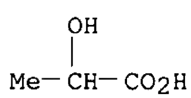
CM 1

CRN 60-29-7
CMF C4 H10 O



CM 2

CRN 50-21-5
CMF C3 H6 O3

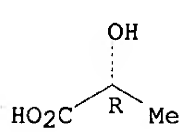


RN 304441-68-7 HCAPLUS
CN Propanoic acid, 2-hydroxy-, (2R)-, mixt. with 2-propanone (9CI) (CA INDEX NAME)

CM 1

CRN 10326-41-7
CMF C3 H6 O3
CDES 1:R

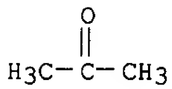
Absolute stereochemistry.



CM 2

CRN 67-64-1

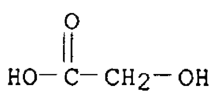
CMF C3 H6 O



RN 304441-69-8 HCAPLUS
CN Acetic acid, hydroxy-, mixt. with 2-propanone (9CI) (CA INDEX NAME)

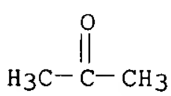
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 67-64-1
CMF C3 H6 O

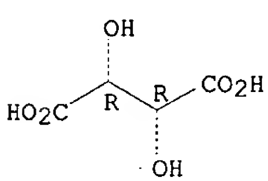


RN 304441-70-1 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, mixt. with 2-propanone (9CI)
(CA INDEX NAME)

CM 1

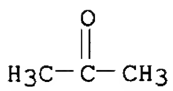
CRN 87-69-4
CMF C4 H6 O6
CDES 1:R2:R*,R*

Absolute stereochemistry.



CM 2

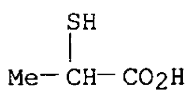
CRN 67-64-1
CMF C3 H6 O



RN 304441-71-2 HCAPLUS
CN Propanoic acid, 2-mercapto-, mixt. with 2-propanone (9CI) (CA INDEX NAME)

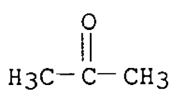
CM 1

CRN 79-42-5
CMF C3 H6 O2 S



CM 2

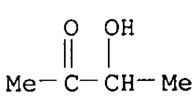
CRN 67-64-1
CMF C3 H6 O



RN 304441-72-3 HCAPLUS
CN 2-Butanone, 3-hydroxy-, mixt. with 2-propanone (9CI) (CA INDEX NAME)

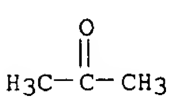
CM 1

CRN 513-86-0
CMF C4 H8 O2



CM 2

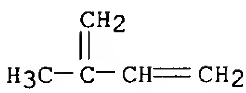
CRN 67-64-1
CMF C3 H6 O



RN 304441-73-4 HCAPLUS
CN 2-Propanone, mixt. with 2-methyl-1,3-butadiene (9CI) (CA INDEX NAME)

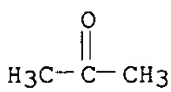
CM 1

CRN 78-79-5
CMF C5 H8



CM 2

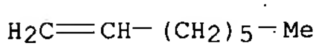
CRN 67-64-1
CMF C3 H6 O



RN 304441-74-5 HCAPLUS
CN 2-Propanone, mixt. with 1-octene (9CI) (CA INDEX NAME)

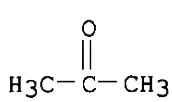
CM 1

CRN 111-66-0
CMF C8 H16



CM 2

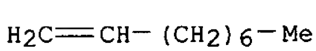
CRN 67-64-1
CMF C3 H6 O



RN 304441-75-6 HCAPLUS
CN 2-Propanone, mixt. with 1-nonene (9CI) (CA INDEX NAME)

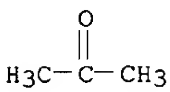
CM 1

CRN 124-11-8
CMF C9 H18



CM 2

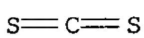
CRN 67-64-1
CMF C3 H6 O



RN 304441-76-7 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with carbon disulfide and trichloromethane (9CI) (CA INDEX NAME)

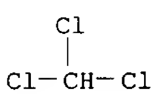
CM 1

CRN 75-15-0
CMF C S2



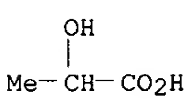
CM 2

CRN 67-66-3
CMF C H Cl3



CM 3

CRN 50-21-5
CMF C3 H6 O3



RN 304441-77-8 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with dichloromethane and 2-propanone (9CI) (CA INDEX NAME)

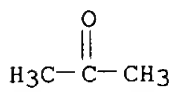
CM 1

CRN 75-09-2
CMF C H2 Cl2

Cl—CH_2—Cl

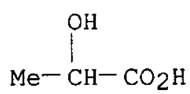
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

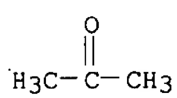
CRN 50-21-5
CMF C3 H6 O3



RN 304441-78-9 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with ethanol and 2-propanone (9CI) (CA INDEX NAME)

CM 1

CRN 67-64-1
CMF C3 H6 O



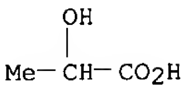
CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C—CH_2—OH

CM 3

CRN 50-21-5
CMF C3 H6 O3



RN 304441-79-0 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 1-octene and 2-propanone (9CI) (CA INDEX NAME)

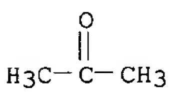
CM 1

CRN 111-66-0
CMF C8 H16

$H_2C{=}CH-(CH_2)_5-Me$

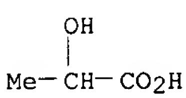
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

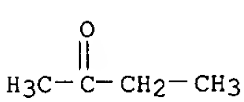
CRN 50-21-5
CMF C3 H6 O3



RN 304441-80-3 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 2-butanone and 2-propanone (9CI) (CA INDEX NAME)

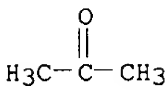
CM 1

CRN 78-93-3
CMF C4 H8 O



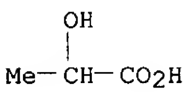
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

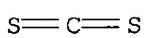
CRN 50-21-5
CMF C3 H6 O3



RN 304441-81-4 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with carbon disulfide and 2-propanone (9CI) (CA INDEX NAME)

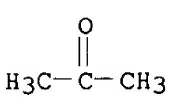
CM 1

CRN 75-15-0
CMF C S2



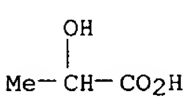
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

CRN 50-21-5
CMF C3 H6 O3

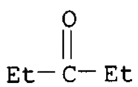


RN 304441-82-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 3-pentanone and 2-propanone (9CI)

(CA INDEX NAME)

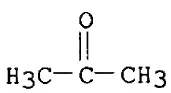
CM 1

CRN 96-22-0
CMF C5 H10 O



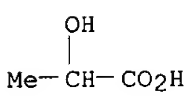
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

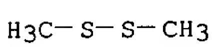
CRN 50-21-5
CMF C3 H6 O3



RN 304441-83-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with dimethyl disulfide and 2-propanone (9CI) (CA INDEX NAME)

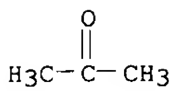
CM 1

CRN 624-92-0
CMF C2 H6 S2



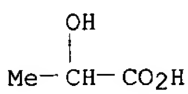
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

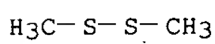
CRN 50-21-5
CMF C3 H6 O3



RN 304441-84-7 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with acetonitrile, 2-butanone, carbon disulfide, dimethyl disulfide, 3-methyl-2-butanone, 2-pentanone, 2-propanone and thiobis[methane] (9CI) (CA INDEX NAME)

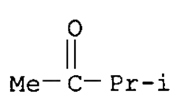
CM 1

CRN 624-92-0
CMF C2 H6 S2



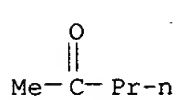
CM 2

CRN 563-80-4
CMF C5 H10 O



CM 3

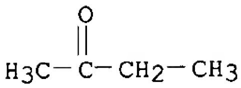
CRN 107-87-9
CMF C5 H10 O



CM 4

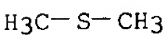
CRN 78-93-3

CMF C4 H8 O



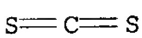
CM 5

CRN 75-18-3
CMF C2 H6 S



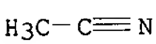
CM 6

CRN 75-15-0
CMF C S2



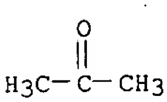
CM 7

CRN 75-05-8
CMF C2 H3 N



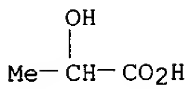
CM 8

CRN 67-64-1
CMF C3 H6 O



CM 9

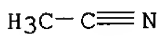
CRN 50-21-5
CMF C3 H6 O3



RN 304441-85-8 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with acetonitrile and 2-propanone (9CI)
(CA INDEX NAME)

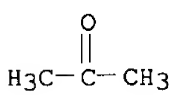
CM 1

CRN 75-05-8
CMF C2 H3 N



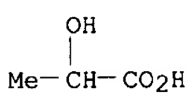
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

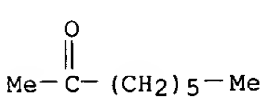
CRN 50-21-5
CMF C3 H6 O3



RN 304441-86-9 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 2-octanone and 2-propanone (9CI)
(CA INDEX NAME)

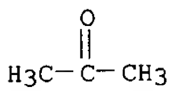
CM 1

CRN 111-13-7
CMF C8 H16 O



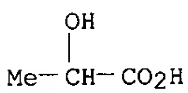
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

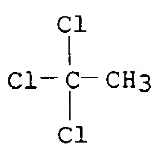
CRN 50-21-5
CMF C3 H6 O3



RN 304441-87-0 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 1,1,1-trichloroethane (9CI) (CA INDEX NAME)

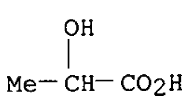
CM 1

CRN 71-55-6
CMF C2 H3 Cl3



CM 2

CRN 50-21-5
CMF C3 H6 O3



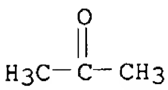
RN 304441-88-1 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with nitrogen and 2-propanone (9CI) (CA INDEX NAME)

CM 1

CRN 7727-37-9
CMF N2

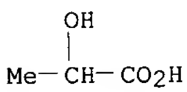
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

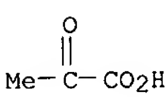
CRN 50-21-5
CMF C3 H6 O3



RN 304441-89-2 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 2-oxopropanoic acid and 2-propanone (9CI) (CA INDEX NAME)

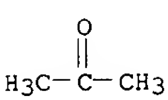
CM 1

CRN 127-17-3
CMF C3 H4 O3



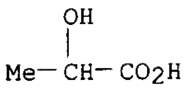
CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

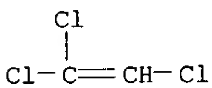
CRN 50-21-5
CMF C3 H6 O3



RN 304441-90-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with trichloroethene (9CI) (CA INDEX NAME)

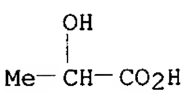
CM 1

CRN 79-01-6
CMF C2 H Cl3



CM 2

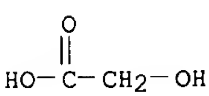
CRN 50-21-5
CMF C3 H6 O3



RN 304441-91-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with hydroxyacetic acid and 2-propanone (9CI) (CA INDEX NAME)

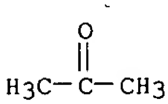
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 67-64-1
CMF C3 H6 O



CM 3

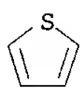
CRN 50-21-5
CMF C3 H6 O3

OH
|
Me— CH— CO_2H

RN 304441-92-7 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with thiophene (9CI) (CA INDEX NAME)

CM 1

CRN 110-02-1
CMF C4 H4 S



CM 2

CRN 50-21-5
CMF C3 H6 O3

OH
|
Me— CH— CO_2H

RN 304441-93-8 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with carbon disulfide and dimethyl disulfide (9CI) (CA INDEX NAME)

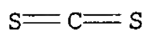
CM 1

CRN 624-92-0
CMF C2 H6 S2

H_3C— S— S— CH_3

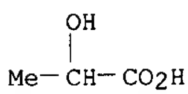
CM 2

CRN 75-15-0
CMF C S2



CM 3

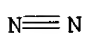
CRN 50-21-5
CMF C3 H6 O3



RN 304441-94-9 HCAPLUS
CN 2-Propanone, mixt. with nitrogen (9CI) (CA INDEX NAME)

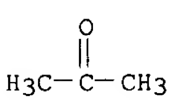
CM 1

CRN 7727-37-9
CMF N2



CM 2

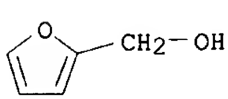
CRN 67-64-1
CMF C3 H6 O



RN 304441-95-0 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 2-furanmethanol (9CI) (CA INDEX NAME)

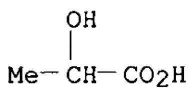
CM 1

CRN 98-00-0
CMF C5 H6 O2



CM 2

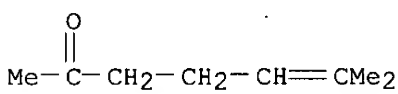
CRN 50-21-5
CMF C3 H6 O3



RN 304441-96-1 HCAPLUS
CN Propanoic acid, 2-hydroxy-, mixt. with 6-methyl-5-hepten-2-one (9CI) (CA INDEX NAME)

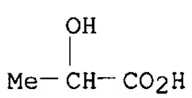
CM 1

CRN 110-93-0
CMF C8 H14 O



CM 2

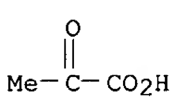
CRN 50-21-5
CMF C3 H6 O3



RN 304646-90-0 HCAPLUS
CN Propanoic acid, 2-oxo-, mixt. with 2-propanone (9CI) (CA INDEX NAME)

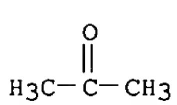
CM 1

CRN 127-17-3
CMF C3 H4 O3



CM 2

CRN 67-64-1
CMF C3 H6 O



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 2

L9 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:807503 HCAPLUS
DOCUMENT NUMBER: 132:148713
TITLE: Analysis of Human Skin Emanations by Gas Chromatography/Mass Spectrometry. 2. Identification of Volatile Compounds That Are Candidate **Attractants** for the Yellow Fever **Mosquito** (Aedes aegypti)
AUTHOR(S): Bernier, Ulrich R.; **Kline, Daniel L.**; Barnard, Donald R.; Schreck, Carl E.; Yost, Richard A.
CORPORATE SOURCE: Department of Chemistry, University of Florida, Gainesville, FL, 32611, USA
SOURCE: Analytical Chemistry (2000), 72(4), 747-756
CODEN: ANCHAM; ISSN: 0003-2700
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Volatile compds. emanated from human skin were studied by gas chromatog./mass spectrometry (GC/MS). The purpose of this study was to identify compds. that may be human-produced kairomones which are used for host location by the **mosquito**, Aedes aegypti (L.). The procedure used to collect volatiles was chosen because of prior knowledge that **attractive** substances can be transferred from skin to glass by handling. Lab. bioassays have shown that the residuum on the glass remains **attractive** to **mosquitoes** until the compds. of importance evap. The sampling and anal. procedures modeled the above-cited process as closely as possible except that the evapn. of compds. from the glass surface was accomplished by thermal desorption from glass beads in a heated GC injection port. This made possible the solventless injection of volatiles onto the column. The compds. were cryofocused on the head of the column with liq. nitrogen prior to GC sepn. A single stage of mass spectrometry on a triple quadrupole instrument was used for mass anal. A combination of electron ionization and pulsed pos. ion/neg. ion chem. ionization modes on two different GC columns (one polar, one relatively nonpolar) was used to identify most of the compd. peaks detected by this technique.

REFERENCE COUNT: 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

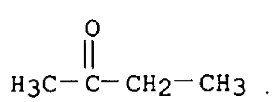
=> d ibib abs hitstr 3

L9 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:746737 HCAPLUS
DOCUMENT NUMBER: 130:91654
TITLE: Evaluation of butanone, carbon dioxide, and 1-octen-3-ol as **attractants** for **mosquitoes** associated with north central Florida bay and cypress swamps
AUTHOR(S): **Kline, Daniel L.**; Mann, Michael O.
CORPORATE SOURCE: Agricultural Research Service, Center for Medical, Agricultural and Veterinary Entomology, United States Department of Agriculture, Gainesville, FL, 32604, USA
SOURCE: Journal of the American Mosquito Control Association (1998), 14(3), 289-297
CODEN: JAMAET; ISSN: 8756-971X
PUBLISHER: American Mosquito Control Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Field studies were conducted to det. the responses of **mosquitoes** found in north central Florida bay and cypress swamps to CO2, light, butanone, and 1-octen-3-ol (octenol), alone and CO2 in combination with each of the others. The response of these **mosquito** species to 5 CO2 release rates (2, 20, 100, 200, and 2,000 mL/min) was also detd. The use of CO2 resulted in a response in all the species studied; the pattern of response to increasing CO2 levels varied from species to species. Collection size increased as CO2 release rate increased; however, 5 species (Aedes dupreei, Anopheles perplexens, Culiseta melanura, Culex erraticus and Mansonia titillans) deviated from this pattern. Collection size of A. dupreei, C. melanura, and C. erraticus decreased at the 2,000 mL/min release rate. Collection size of A. perplexens and M. titillans remained const. at each CO2 level to which these species responded. In the CO2 and light studies, the general pattern for collection size was: CO2 + light > CO2 alone > light alone. The combination CO2 + octenol (2.2 mg/h) resulted in a synergistic response for all species except C. melanura, Culex nigripalpus, and Culex restuans. Only 2 species (Aedes atlanticus and Aedes canadensis) responded to octenol in relatively large nos. (i.e., response to octenol alone .gtoreq.5% of that obtained by using CO2 alone at the 200 mL/min release rate). Octenol at the release rate tested repelled C. melanura. The butanone + CO2 bait combination increased the responses compared to CO2 alone of Aedes infirmatus, Culex salinarius, Coquillettidia perturbans, and Psorophora ferox, but decreased the response of Culiseta melanura.

IT **78-93-3**, Butanone, biological studies **124-38-9**, Carbon dioxide, biological studies **3391-86-4**, 1-Octen-3-ol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(evaluation of butanone, carbon dioxide, and 1-octen-3-ol as **attractants** for **mosquitoes** assocd. with north central Florida bay and cypress swamps)

RN 78-93-3 HCAPLUS
CN 2-Butanone (8CI, 9CI) (CA INDEX NAME)



RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)

$O=C=O$

RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

```
          OH
          |
H2C==CH-CH-(CH2)4-Me
```

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 4

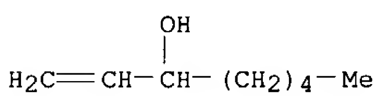
L9 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:501770 HCAPLUS
DOCUMENT NUMBER: 121:101770
TITLE: Olfactory **attractants** for **mosquito** surveillance and control: 1-octen-3-ol
AUTHOR(S): **Kline, Daniel L.**
CORPORATE SOURCE: Agricultural Research Service, United States Department Agriculture, Gainesville, FL, 32604, USA
SOURCE: J. Am. Mosq. Control Assoc. (1994), 10(2, PT. 2), 280-7
CODEN: JAMAET; ISSN: 8756-971X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 26 refs. When used alone, octenol has been a good **attractant** for only a few species. However, there appears to be a synergistic response of species of the genera Aedes, Anopheles, Coquillettidia, Psorophora, and Mansonia to the combination of octenol and CO2. The potential role of this compd. in **mosquito** management programs is to be examd.

IT **3391-86-4**, 1-Octen-3-ol
RL: BIOL (Biological study)
(**mosquito attractant**)

RN 3391-86-4 HCAPLUS

CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



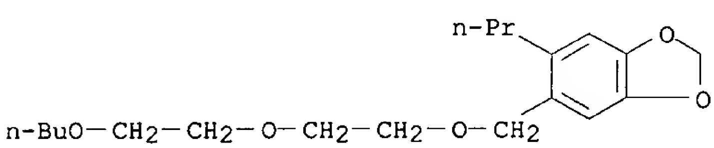
=> d ibib abs hitstr 5

L9 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:487442 HCAPLUS
DOCUMENT NUMBER: 115:87442
TITLE: Interactive effects of 1-octen-3-ol and carbon dioxide on **mosquito** (Diptera: Culicidae) surveillance and control
AUTHOR(S): **Kline, D. L.**; Wood, J. R.; Cornell, J. A.
CORPORATE SOURCE: Insects Aff. Man and Anim. Res. Lab., ARS, Gainesville, FL, 32604, USA
SOURCE: J. Med. Entomol. (1991), 28(2), 254-8
CODEN: JMENA6; ISSN: 0022-2585
DOCUMENT TYPE: Journal
LANGUAGE: English

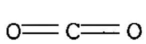
AB Responses of natural populations of biting Diptera were studied at Everglades National Park, Fla., to 3 levels (0, 3.0, and 41.1 mg/h) of 1-octen-3-ol (octenol), 4 levels (0, 20, 200, and 2000 mL/min) of CO2 and their combinations. Catches of **mosquitoes** (Aedes taeniorhynchus), Culex [Melanoconion]) spp., C. nigripalpus and Wyeomyia spp.) and one tabanid (Diachlorus ferrugatus) were affected significantly by CO2 and octenol. Significantly greater nos. of all taxa were collected as the level of CO2 was increased. The 3.0 mg/h release rate of octenol alone resulted in increased trap catches relative to no bait for all taxa except Culex (Melanoconion) spp., whereas the 41.1 mg/h release rate alone generally reduced trap catches relative to either no bait or 3.0 mg/h octenol. The effect of CO2 and octenol was additive for Culex spp. and D. ferrugatus and synergistic for A. taeniorhynchus. Six octenol-supplemented CO2 treatments produced mixed results for C. nigripalpus.

IT **51-03-6 124-38-9**, Carbon dioxide, biological studies
3391-86-4, 1-Octen-3-ol
RL: BIOL (Biological study)
(in **mosquito** control)

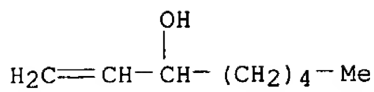
RN 51-03-6 HCAPLUS
CN 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl- (9CI) (CA INDEX NAME)



RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

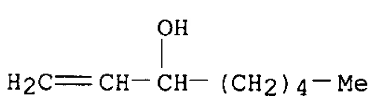

OH
H2C=CH-CH-(CH2)4-Me

=> d ibib abs hitstr 6

L9 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:242786 HCAPLUS
DOCUMENT NUMBER: 114:242786
TITLE: Evaluation of 1-octen-3-ol as an **attractant** for Coquillettidia perturbans, Mansonia spp. and Culex spp. associated with phosphate mining operations
AUTHOR(S): **Kline, D. L.**; Wood, J. R.; Morris, C. D.
CORPORATE SOURCE: Insects Aff. Man Anim. Res. Lab., Agric. Res. Serv., Gainesville, FL, 32604, USA
SOURCE: J. Am. Mosq. Control Assoc. (1990), 6(4), 605-11
CODEN: JAMAET; ISSN: 8756-971X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Field studies were conducted in phosphate mined areas of Polk County, FL, to det. the responses of **mosquitoes** produced as a result of mining operations to octenol and CO2. There was a highly significant response of all species except Culex erraticus and Anopheles quadrimaculatus to CO2. Also, a significant neg. octenol response was shown for A. quadrimaculatus. Coquillettidia perturbans, Mansonia titillans and C. salinarius had an increased response to octenol relative to Anopheles spp. and Culex (Melanoconion) spp. Both C. perturbans and M. titillans showed a significant synergistic enhancement in catch with octenol supplemented CO2 when compared with CO2 alone. However, their response to CO2 was not significantly different at 2 release rates (200 and 500 mL/min). There was a slightly greater than additive effect for the combination of octenol and CO2 for C. nigripalpus.

IT **3391-86-4**, 1-Octen-3-ol
RL: BIOL (Biological study)
(as **mosquito attractant**)
RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



=> d ibib abs hitstr 7

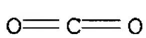
L9 ANSWER 7 OF 7 HCAPLUS

ACCESSION NUMBER: 1989:589547 HCAPLUS
DOCUMENT NUMBER: 111:189547
TITLE: Carbon dioxide and 1-octen-3-ol as **mosquito attractants**
AUTHOR(S): Takken, W.; **Kline, D. L.**
CORPORATE SOURCE: Insects Affecting Man Anim. Res. Lab., Agric. Res. Serv., Gainesville, FL, 32604, USA
SOURCE: J. Am. Mosq. Control Assoc. (1989), 5(3), 311-16
CODEN: JAMAET; ISSN: 8756-971X
DOCUMENT TYPE: Journal
LANGUAGE: English

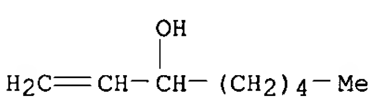
AB Interval suction traps were used to study the **attractant** effect of CO2 and 1-octen-3-ol on trap catches of **mosquito** populations at 2 different locations in Florida. There was no significant increase in the nos. of **mosquitoes** caught when the concn. of CO2 was increased from 200 to 1000 mL/min. One-octen-3-ol used by itself **attracted mosquitoes** in nos. similar to CO2 released at 200 mL/min. One-octen-3-ol and CO2 acted synergistically in **attracting** significantly greater nos. of Aedes taeniorhynchus, Anopheles spp. and Wyeomyia mitchellii than either bait used singly, although the response of Culex spp. to this bait combination was less pronounced. Ceratopogonidae (Culicoides furens) and Tabanidae (Diachlorus ferrugatus, Tabanus nigrovittatus and Chrysops spp.) were also **attracted** to the combined bait.

IT **124-38-9**, Carbon dioxide, biological studies **3391-86-4**, 1-Octen-3-ol
RL: BIOL (Biological study)
(as **attractant** for **mosquito**)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



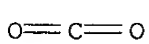
=> d ibib abs hitstr 1

L29 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:588254 HCAPLUS
DOCUMENT NUMBER: 133:319841
TITLE: Evaluation of Stomoxys calcitrans (Diptera: Muscidae) behavioral response to human and related odors in a triple cage olfactometer with insect traps
AUTHOR(S): Alzogaray, Raul A.; Carlson, David A.
CORPORATE SOURCE: Centro de Investigaciones de Plagas e Insecticidas (CIPEIN/CITEFA-CONICET-UNSAM), Villa Martelli, 1603, Argent.
SOURCE: Journal of Medical Entomology (2000), 37(3), 308-315
CODEN: JMENA6; ISSN: 0022-2585
PUBLISHER: Entomological Society of America
DOCUMENT TYPE: Journal
LANGUAGE: English

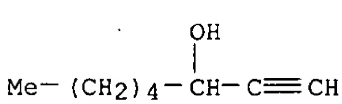
AB A triple cage olfactometer provided with insect traps was used for evaluating behavioral responses of Stomoxys calcitrans females to human skin and breath, CO2, and L-lactic acid analogs. After demonstrating there were no significant differences caused by cage location or time of day, 3 sets of 3 olfactometer tests were performed in a day, every 2 h beginning at 0900 h. When a human hand was used as attractant, the attraction (expressed as percentage of trapped flies) increased as a function of the time; an inverted U-shaped relationship between attractancy and air speed was obsd.; and variation in fly d. in the range 25-75 per cage did not affect the attraction response. When human breath was used as attractant the attraction increased linearly as a function of time and it was exhalation frequency dependent; when air flow was absent the highest response was obsd.; and 24- to 38-h-old flies were more attracted than younger and older ones. When CO2 was tested, activation and orientation and probing behavior were concn. dependent with flows ranging between 0.0001 and 0.038 L/s, but attraction was not. No attraction was obsd. with 10, 100, or 1000 .mu.g of compds. related to L-lactic acid and several synthetic human odors and related compds., although orientation was often obsd.

IT **124-38-9**, Carbon dioxide, biological studies **818-72-4**, 1-Octyn-3-ol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(odors from human breath and hand and carbon dioxide and lactate analogs effects on behavioral responses of stable fly Stomoxys calcitrans)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 818-72-4 HCAPLUS
CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 2

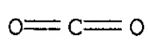
L29 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2002 ACS

not relevant

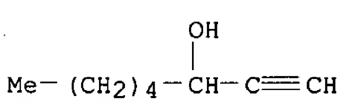
ACCESSION NUMBER: 1997:672532 HCAPLUS
DOCUMENT NUMBER: 127:334814
TITLE: A.c. impedance investigations on the performance of inhibitors and surfactants in CO2 corrosion of steel under natural gas production conditions
AUTHOR(S): Ruhrberg, U.; Schmitt, G.
CORPORATE SOURCE: Karl-Winnacker-Institut, DECHEMA e.V., Frankfurt/Main, D-60061, Germany
SOURCE: Mater. Corros. (1997), 48(9), 631-639
CODEN: MTCREQ; ISSN: 0947-5117
PUBLISHER: Wiley-VCH
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Inhibition mechanisms of CO2 corrosion of low alloy carbon steel (38Mn6) were studied under prodn. conditions of sweet natural gas (1 M NaCl + 0.1 M CaCl2; 1 and 5 bar CO2; 80.degree.) in the presence of surface active compds. (inhibitors, surfactants) with a.c. impedance spectrometry. Based on a pore model an equiv. circuit was developed which explains the action mechanisms of the substances tested. Fatty amines and imidazolines inhibit the interface reaction at the bottom of pores in the corrosion product scale clue to adsorption. Non-ionic surfactants can impair the effectivity of N-contg. inhibitors. 1-Octyne-3-ol acts through formation of polymer films and reduces the porosity of the scale. All substances under investigation influence the morphol. of the scale and the kinetic of its formation.

IT **124-38-9,** Carbon dioxide, miscellaneous
RL: MSC (Miscellaneous)
(corrosion; anticorrosive properties of inhibitors and surfactants in CO2 corrosion of steel under natural gas prodn. conditions)
RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



IT **818-72-4,** 1-Octyn-3-ol
RL: NUU (Other use, unclassified); USES (Uses)
(inhibitor; anticorrosive properties of inhibitors and surfactants in CO2 corrosion of steel under natural gas prodn. conditions)
RN 818-72-4 HCAPLUS
CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



=> d ibib abs hitstr 147 1

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L47  ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2002:237360  HCAPLUS
DOCUMENT NUMBER:          136:228378
TITLE:                    Method, apparatus and compositions for inhibiting the
                          human scent tracking ability of mosquitoes
                          in environmentally defined three dimensional spaces
INVENTOR(S):              Nolen, J. A.; Bedoukian, Robert H.; Maloney, Robert
                          E.; Kline, Daniel L.
PATENT ASSIGNEE(S):       Biosensory, Inc., USA; Bedoukian Research Inc.; The
                          United States of America as Represented by the
                          Secretary of Agriculture
SOURCE:                   U.S., 6 pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

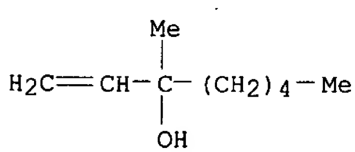
     PATENT NO.       KIND  DATE          APPLICATION NO.  DATE
     ---------------  ----  --------      ---------------  --------
     US 6362235        B1   20020326      US 1999-307907   19990510
     AU 2000048092     A5   20001121      AU 2000-48092    20000501
     WO 2000067570     A3   20010510      WO 2000-US11631  20000501
         W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
             MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
             SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
             IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML,
             MR, NE, SN, TD, TG
     BR 2000011514     A    20020326      BR 2000-11514    20000501
     EP 1199930        A2   20020502      EP 2000-930237   20000501
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
PRIORITY APPLN. INFO.:                 US 1999-307907   A  19990510
                                       WO 2000-US11631  W  20000501
```

AB The ability of **mosquitoes** to locate a target by olfactory emissions of the target is inhibited using 3-methyl-1-alkene-3-ols and 3-methyl-1-**alkyn-3-ols**.

IT **24089-00-7**, 3-Methyl-1-octen-3-ol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(agent for inhibiting the human-scent-tracking ability of **mosquitoes**)

RN 24089-00-7 HCAPLUS

CN 1-Octen-3-ol, 3-methyl- (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr l47 2

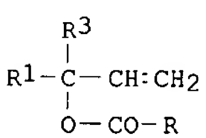
L47 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:10201 HCAPLUS
DOCUMENT NUMBER: 136:65643
TITLE: Method and compositions for inhibiting the human and animal scent tracking ability of **mosquitoes**
INVENTOR(S): Nolen, James A.; Bedoukian, Robert H.; Kline, Daniel L.
PATENT ASSIGNEE(S): Biosensory, Inc., USA; Bedoukian Research, Inc.; United States of America, Represented by the Secretary of Agriculture
SOURCE: PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002000021	A2	20020103	WO 2001-US20254	20010626

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-604875 A 20000628
OTHER SOURCE(S): MARPAT 136:65643
GI



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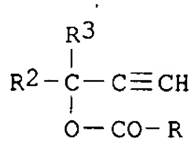
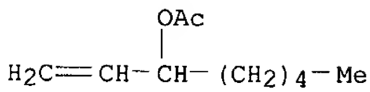


II

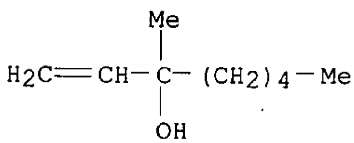
AB The ability of **mosquitoes** to locate a target by olfactory emissions of the target is inhibited by dispensing into a spatial area an inhibiting effective amt. of at least one inhibiting compd. selected from the group consisting of esters of 1-alkene-3-ols I and 1-**alkyn-3-ol** esters II (R = C1-C4 alkyl; R1, R2 = (un)satd. aliph. C1-C12 hydrocarbon; and R3 = H or CH3).

IT **2442-10-6**, 1-Octen-3-yl acetate **24089-00-7**, 3-Methyl-1-octen-3-ol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(inhibition of **mosquito** ability tracking human and animal scent by)

RN 2442-10-6 HCAPLUS
CN 1-Octen-3-ol, acetate (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 24089-00-7 HCAPLUS
CN 1-Octen-3-ol, 3-methyl- (8CI, 9CI) (CA INDEX NAME)



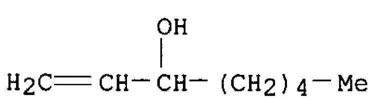
=> d ibib abs hitstr l47 3

L47 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:604173 HCAPLUS
DOCUMENT NUMBER: 133:319858
TITLE: Odor sensitivity of antennal olfactory cells underlying grooved pegs of Anopheles gambiae s.s. and An. quadriannulatus
AUTHOR(S): van den Broek, Ingrid V. F.; den Otter, C. J.
CORPORATE SOURCE: Group Sense Organs and Behaviour, Department of Animal Physiology, University of Groningen, Haren, 9750 AA, Neth.
SOURCE: Entomologia Experimentalis et Applicata (2000), 96(2), 167-175
CODEN: ETEAAT; ISSN: 0013-8703
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In female **mosquitoes** of the anthropophilic species Anopheles gambiae Giles s.s. and the zoophilic An. quadriannulatus Theobald single sensillum recordings from grooved pegs were made. In both species, the majority of these sensilla responded to ammonium hydroxide, butylamine and propanoic acid, whereas a smaller part responded to acetone. Lactic acid, butanone, 3-Me phenol and 1-octen-3-ol evoked responses in a minority of grooved pegs only. In An. gambiae these four substances evoked either excitatory or inhibitory responses. In An. quadriannulatus excitatory and inhibitory responses were only found on stimulation with lactic acid; butanone, 3-Me phenol and 1-octen-3-ol only evoked inhibition in the pegs of this species. More than half of the grooved pegs responded to water vapor with an increase in spike frequency. As opposed to this, in some pegs inhibitory responses were found upon stimulation with vapor of low humidity. This suggests that grooved pegs may play a role in humidity perception in Anopheles. Dose-response relations were investigated for cells excited by ammonium hydroxide, butylamine and propanoic acid. Excitatory responses to these three substances were dose-dependent. No significant differences were found between the dose-response curves of the two species. It is concluded that in both species the host odors tested are not perceived by specialist cells. Combined information from generalist cells may provide a detailed "odor profile" of the host.

IT **3391-86-4,** 1-Octen-3-ol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(odor sensitivity of antennal olfactory cells underlying grooved pegs of Anopheles gambiae and Anopheles quadriannulatus)

RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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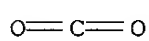
L51 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:47144 HCAPLUS
DOCUMENT NUMBER: 128:152035
TITLE: Effects of **carbon dioxide**, acetone and 1-octen-3-ol on the flight responses of the stable fly, Stomoxys calcitrans, in a wind tunnel
AUTHOR(S): Schofield, Steven; Brady, John
CORPORATE SOURCE: Department of Biology, Imperial College, London, UK
SOURCE: Physiol. Entomol. (1997), 22(4), 380-386
CODEN: PENTDE; ISSN: 0307-6962
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

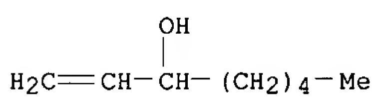
AB The flight behavior of S. calcitrans in odor plumes contg. **CO2**, acetone, or 1-octen-3-ol was assessed from video recordings. A downwind bias was evident in clean air, whereas all 3 test chems. elicited upwind anemotaxis. Response thresholds were .apprx.0.006% for **CO2**, 0.001-0.01 .mu.g/L for acetone, and .apprx.0.0002 .mu.g/L for 1-octen-3-ol. Sinuosity (.degree. cm-1) and angular velocity (.degree. s-1) increased with **CO2** concn., but velocity (cm/s) decreased. Similar, but less clear effects were obsd. for acetone and 1-octen-3-ol.

IT **124-38-9, Carbon dioxide**, biological studies
3391-86-4, 1-Octen-3-ol
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(**carbon dioxide**, acetone, and octenol effect on flight responses of stable flies)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



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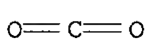
L51 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:778662 HCAPLUS
DOCUMENT NUMBER: 128:59659
TITLE: Effects of **carbon dioxide**, acetone and 1-octen-3-ol on the activity of the stable fly, Stomoxys calcitrans
AUTHOR(S): Schofield, Steven; Witty, Charles; Brady, John
CORPORATE SOURCE: Department of Biology, Imperial College, London, UK
SOURCE: Physiol. Entomol. (1997), 22(3), 256-260
CODEN: PENTDE; ISSN: 0307-6962
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

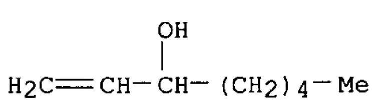
AB The responses of Stomoxys calcitrans (L.) to **carbon dioxide**, acetone and 1-octen-3-ol were assessed using flight activity as a measure of activation. **Carbon dioxide** and acetone caused significant increases in activity, with thresholds at .apprx.0.006% and .apprx.0.01 .mu.g l-1, resp. For 1-octen-3-ol, flight activity decreased at 2 .mu.g l-1 for males, and at 0.2 .mu.g l-1 for females. Variation in activity was also manifest as differences in the time elapsed between landing and subsequent take-off: **CO2** (7.1 s) and acetone (12.2 s) had lower times than the corresponding no-odor controls (16.6 and 23.2 s), whereas 1-octen-3-ol (25 s) had a higher time than the control (21.5 s). The proportion of the total no. of flights landing on a black target was higher in **CO2** (0.16) and acetone (0.11) than in clear air (c. 0.07), but was lower for 1-octen-3-ol.

IT **124-38-9, Carbon dioxide**, biological studies
3391-86-4, 1-Octen-3-ol
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(**carbon dioxide** and acetone and 1-octen-3-ol effects on the activity of the stable fly)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



not relevant

=> D TI PN IN 1-5

L66 ANSWER 1 OF 5 USPATFULL
TI Increased enantioselectivity of lipase catalyzed transesterification of alkynols with vinyl esters
PI US 5639662 19970617
IN Mayrhofer, Herbert, Engerwitzdorf, Austria
Wirth, Irma, Enns, Austria
Pochlauer, Peter, Linz, Austria

uses octynol as a reactant

L66 ANSWER 2 OF 5 USPATFULL
TI Optically active alcohols
PI US 5041559 19910820
IN Sato, Fumie, Fujisawa, Japan

L66 ANSWER 3 OF 5 USPATFULL
TI Optically active alcohols, process for producing the same, and process for resolving the same
PI US 5037855 19910806
IN Sato, Fumie, Fujisawa, Japan

L66 ANSWER 4 OF 5 USPATFULL
TI Optically active alcohols and process for producing the same
PI US 4987236 19910122
IN Sato, Fumie, Fujisawa, Japan

L66 ANSWER 5 OF 5 USPATFULL
TI Optically active alcohols, process for producing the same, and process for resolving the same
PI US 4902812 19900220
IN Sato, Fumie, Fujisawa, Japan

```
=> d ibib abs hitstr 1

L66  ANSWER 1 OF 5  USPATFULL
ACCESSION NUMBER:        97:51912  USPATFULL
TITLE:                   Increased enantioselectivity of lipase catalyzed
                         transesterification of alkynols with vinyl esters
INVENTOR(S):             Mayrhofer, Herbert, Engerwitzdorf, Austria
                         Wirth, Irma, Enns, Austria
                         Pochlauer, Peter, Linz, Austria
PATENT ASSIGNEE(S):      DSM Chemie Linz GmbH, Linz, Austria (non-U.S.
                         corporation)

                              NUMBER        KIND    DATE
                         ---------------- ------ --------
PATENT INFORMATION:      US 5639662              19970617
APPLICATION INFO.:       US 1995-529712          19950918  (8)
RELATED APPLN. INFO.:    Continuation of Ser. No. US 1994-198772, filed on 18
                         Feb 1994, now abandoned

                                NUMBER         DATE
                         ------------------ --------
PRIORITY INFORMATION:    AT 1993-319        19930219
DOCUMENT TYPE:           Utility
FILE SEGMENT:            Granted
PRIMARY EXAMINER:        Saucier, Sandra E.
LEGAL REPRESENTATIVE:    Wenderoth, Lind & Ponack
NUMBER OF CLAIMS:        10
EXEMPLARY CLAIM:         1
LINE COUNT:              365
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB       Process for enhancement of enantioselectivity in the enzymatic
         separation of (R)- and (S)-enantiomers of an asymmetric alkynol, a
         lipase and in the presence of at least one vinyl ester, in which the
         acid component has at least 4 C atoms, an organic solvent and with the
         addition of water. Also disclosed is a process for enhancement of
         enantioselectivity in the enzymatic separation of (R)- and
         (S)-enantiomers of an alcohol with the aid of the abovementioned vinyl
         ester under addition of a second vinyl ester having at least 2 C atoms
         less in the alkyl chain than the vinyl ester used as esterifying agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT   32556-71-1P, (S)-1-Octyn-3-ol
        (resoln. of racemates of asym. alkynols by lipase-catalyzed
        transesterification with vinyl esters)
RN   32556-71-1  USPATFULL
CN   1-Octyn-3-ol, (3S)- (9CI)  (CA INDEX NAME)

       Absolute stereochemistry.  Rotation (-).
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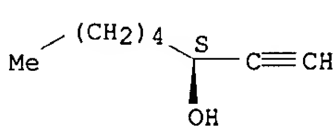

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IT   37911-28-7, (.+-.)-1-Octyn-3-ol
        (resoln. of racemates of asym. alkynols by lipase-catalyzed
        transesterification with vinyl esters)
RN   37911-28-7  USPATFULL
```

=> d ibib abs hitstr 2

L66 ANSWER 2 OF 5 USPATFULL
ACCESSION NUMBER: 91:66912 USPATFULL
TITLE: Optically active alcohols
INVENTOR(S): Sato, Fumie, Fujisawa, Japan
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5041559		19910820
APPLICATION INFO.:	US 1989-437887		19891117 (7)

RELATED APPLN. INFO.: Division of Ser. No. US 1987-79464, filed on 30 Jul 1987, now patented, Pat. No. US 4902812

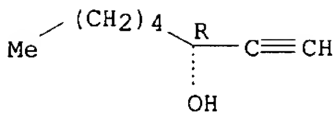
	NUMBER	DATE
PRIORITY INFORMATION:	JP 1986-180969	19860731
	JP 1986-260419	19861031
	JP 1987-33615	19870217

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Waddell, Frederick E.
ASSISTANT EXAMINER: Owens, Amelia A.
LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch and Birch
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 1556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided herein is an optically active alcohol having a silyl group, stannyl group, or halogen atom at the .gamma.-position, selected from compounds represented by the general formula [I], ##STR1## the general formula [II], ##STR2## the general formula [III], ##STR3## and the general formula [IV], ##STR4## (where, R denotes a C.sub.1 -C.sub.10 substituted or unsubstituted alkyl group or substituted or unsubstituted phenyl group; A denotes a silyl group represented by ##STR5## a stannyl group represented by ##STR6## or a halogen atom. R.sup.1, R.sup.2, and R.sup.3 are substituted or unsubstituted C.sub.1 -C.sub.10 alkyl groups or substituted or unsubstituted phenyl group, which may be the same or different, provided that this does not apply in the case where A represents a stannyl group or halogen atom in the general formulas [III] and [IV].); a process for producing the same, and a process for resolving the optically active alcohol into isomers of high optical purity.

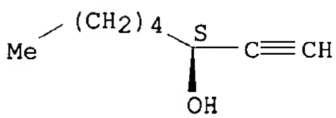
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **32556-70-0P 32556-71-1P**
(prepn. and reaction of, in prepn. of optically active allyl alc. derivs.)
RN 32556-70-0 USPATFULL
CN 1-Octyn-3-ol, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 32556-71-1 USPATFULL
CN 1-Octyn-3-ol, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> D KWIC 2

L66 ANSWER 2 OF 5 USPATFULL
SUMM The unsubstituted epoxy alcohol [XII] is a useful compound for the synthesis of brevicomin (an **insect pheromone**) (S. Takano et al., J. C. S., Chem. Commun., 1985, 1759) and monosaccharide (D. Seebach et al., Helv. Chim. Acta,. . .
IT **32556-70-0P 32556-71-1P** 69498-66-4P 109526-64-9P 109526-65-0P 109526-66-1P 109526-67-2P 113331-53-6P 113428-14-1P 126531-32-6P 126531-33-7P 126531-34-8P 126640-05-9P 126640-06-0P 126640-07-1P 126640-08-2P
(prepn. and reaction of, in prepn. of optically active allyl alc. derivs.)

=> d ibib abs hitstr 5

L66 ANSWER 5 OF 5 USPATFULL
ACCESSION NUMBER: 90:13547 USPATFULL
TITLE: Optically active alcohols, process for producing the same, and process for resolving the same
INVENTOR(S): Sato, Fumie, Fujisawa, Japan
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4902812		19900220	
APPLICATION INFO.:	US 1987-79464		19870730	(7)

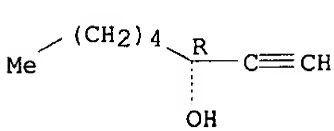
	NUMBER	DATE
PRIORITY INFORMATION:	JP 1986-180969	19860731
	JP 1986-260419	19861031
	JP 1987-33615	19870217

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
ASSISTANT EXAMINER: Owens, Amelia A.
LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch & Birch
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 1467
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided herein is an optically active alcohol having a silyl group, stannyl group, or halogen atom at the .gamma.-position, selected from compounds represented by the general formula [I], ##STR1## the general formula [II], ##STR2## the general formula [III], ##STR3## and the general formula [IV], ##STR4## (where, R denotes a C.sub.1 -C.sub.10 substituted or unsubstituted alkyl group or substituted or unsubstituted phenyl group; A denotes a silyl group represented by ##STR5## a stannyl group represented by ##STR6## or a halogen atom. R.sup.1, R.sup.2, and R.sup.3 are substituted or unsubstituted C.sub.1 -C.sub.10 alkyl groups or substituted or unsubstituted phenyl group, which may be the same or different, provided that this does not apply in the case where A represents a stannyl group or halogen atom in the general formulas [III] and [IV].); a process for producing the same, and a process for resolving the optically active alcohol into isomers of high optical purity.

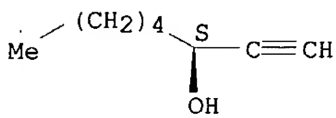
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **32556-70-0P 32556-71-1P**
(prepn. and reaction of, in prepn. of optically active allyl alc. derivs.)
RN 32556-70-0 USPATFULL
CN 1-Octyn-3-ol, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 32556-71-1 USPATFULL
CN 1-Octyn-3-ol, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



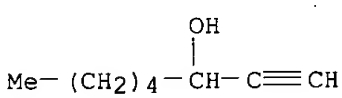
=> D KWIC 5

L66 ANSWER 5 OF 5 USPATFULL
SUMM The unsubstituted epoxy alcohol [XII] is a useful compound for the synthesis of brevicomin (an **insect pheromone**) (S. Takano et al., J. C. S., Chem. Commun., 1985, 1759) and monosaccharide (D. Seebach et al., Helv. Chim. Acta,. . .
IT **32556-70-0P 32556-71-1P** 69498-66-4P 109526-64-9P 109526-65-0P 109526-66-1P 109526-67-2P 113331-53-6P 113428-14-1P 126531-32-6P 126531-33-7P 126531-34-8P 126640-05-9P 126640-06-0P 126640-07-1P 126640-08-2P
(prepn. and reaction of, in prepn. of optically active allyl alc. derivs.)

not relevant

=> d ibib abs hitstr

L37 ANSWER 1 OF 1 HCAPLUS
ACCESSION NUMBER: 1997:184604 HCAPLUS
DOCUMENT NUMBER: 126:171095
TITLE: An Easy Approach to the Synthesis of Optically Active vic-Diols: A New Single-Enzyme System
AUTHOR(S): Bortolini, Olga; Fantin, Giancarlo; Fogagnolo, Marco; Giovannini, Pier Paolo; Guerrini, Alessandra; Medici, Alessandro
CORPORATE SOURCE: Dipartimento di Chimica, Universita' di Ferrara, Ferrara, 44100, Italy
SOURCE: J. Org. Chem. (1997), 62(6), 1854-1856
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Asym. redn. of .alpha.-diketones to the (S,S)-diols was accomplished with NADH and a diacetyl reductase from Bacillus stearothermophilus. A double-enzyme system composed of the diacetyl reductase and glucose 6-phosphate dehydrogenase was used to asym. reduce .alpha.-diketones to .alpha.-hydroxy ketones having the S configuration.
IT **818-72-4**, 1-Octyn-3-ol
RL: RCT (Reactant)
(enzymic asym. redn. of .alpha.-diketones)
RN 818-72-4 HCAPLUS
CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



=> d ibib abs hitstr l44 1

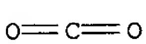
L44 ANSWER 1 OF 7 HCAPLUS

ACCESSION NUMBER: 2001:382746 HCAPLUS
DOCUMENT NUMBER: 135:57328
TITLE: Evaluation of 1-octen-3-ol, **carbon dioxide**, and light as attractants for **mosquitoes** associated with two distinct habitats in North Carolina
AUTHOR(S): Rueda, Leopoldo M.; Harrison, Bruce A.; Brown, Jeffrey S.; Whitt, Parker B.; Harrison, Ryan L.; Gardner, Robert C.
CORPORATE SOURCE: Public Health Pest Management Section, Division of Environmental Health, North Carolina Department of Environment and Natural Resources, Raleigh, NC, 27626-0593, USA
SOURCE: Journal of the American Mosquito Control Association (2001), 17(1), 61-66
CODEN: JAMAET; ISSN: 8756-971X
PUBLISHER: American Mosquito Control Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Field studies were conducted in North Carolina to det. the responses of **mosquitoes** found in salt marsh and inland creek flood plain areas to 1-octen-3-ol (octenol), **carbon dioxide** (**CO2**), and light in various combinations with Centers for Disease Control (CDC) light traps. Over 56,000 adult **mosquito** specimens of 12 species in 4 genera were collected in the salt marsh. They exhibited a general response pattern of octenol + **CO2** + light > **CO2** + light = octenol + **CO2** > octenol + light > octenol alone. Significantly, more Aedes sollicitans, Ae. taeniorhynchus, Anopheles bradleyi, and Culex salinarius were attracted to octenol + **CO2** + light than to **CO2** + light. Over 19,000 specimens of 24 species in 7 genera were collected in the inland creek flood plain. Although the response patterns to the attractants were similar to those in the salt marsh area, there was no significant difference between octenol + **CO2** + light and **CO2** + light. Aedes vexans, An. crucians, and An. punctipennis were attracted nearly equally to these two attractant combinations. These studies demonstrate that responses to combinations of these attractants are species specific. However, different combinations of attractants can significantly increase the collection of targeted species important in arbovirus transmission. The use of these combinations would be very beneficial in **mosquito**-borne virus surveillance studies. The use of octenol by itself or in conjunction with light was found the least useful for collecting **mosquitoes** in both habitats.

IT **124-38-9, Carbon dioxide**, biological studies
3391-86-4, 1-Octen-3-ol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(evaluation as attractant for **mosquitoes**)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

$$H_2C{=}CH{-}\underset{}{\overset{\displaystyle OH}{\overset{|}{C}H}}{-}(CH_2)_4{-}Me$$

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr l44 2

L44 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:319663 HCAPLUS
DOCUMENT NUMBER: 134:306628
TITLE: Insect attractants for **mosquitoes** containing an oxocarboxylic acid
INVENTOR(S): Healy, Timothy Philip
PATENT ASSIGNEE(S): Imperial College of Science, Technology and Medicine, UK
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001030150	A1	20010503	WO 2000-GB4067	20001020

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 1999-24965 A 19991021

AB A compd. R-C(O)-X-COOH (X = optional linker group; R = hydrocarbyl), preferably 2-oxopentanoic acid, is used to attract **mosquitoes** Anopheles gambiae and Aedes aegypti in container traps. The above compd. can be used in combination with other insect attractants, such as **carbon dioxide**, 1-octen-3-ol, and lactic acid.

IT **124-38-9, Carbon dioxide**, biological studies
3391-86-4, 1-Octen-3-ol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(insect attractant for **mosquitoes** used in combination with oxocarboxylic acid)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)

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O══C══O
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RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

```
          OH
          |
H2C══CH─CH─(CH2)4─Me
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REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr l44 3

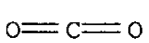
L44 ANSWER 3 OF 7 HCAPLUS

ACCESSION NUMBER: 2000:536843 HCAPLUS
DOCUMENT NUMBER: 133:218818
TITLE: The response of Culex quinquefasciatus (Diptera: Culicidae) to traps baited with **carbon dioxide**, 1-octen-3-ol, acetone, butyric acid and human foot odor in Tanzania
AUTHOR(S): Mboera, L. E. G.; Takken, W.; Sambu, E. Z.
CORPORATE SOURCE: National Institute for Medical Research, Muheza, Tanzania
SOURCE: Bulletin of Entomological Research (2000), 90(2), 155-159
CODEN: BEREA2; ISSN: 0007-4853
PUBLISHER: CABI Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English

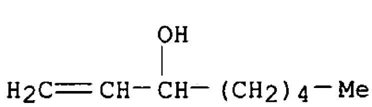
AB The responses of Culex quinquefasciatus Say to traps baited with **carbon dioxide**, 1-octen-3-ol, acetone, butyric acid and human foot odor were studied in the field, using Counterflow Geometry (CFG) and Centers for Disease Control (CDC) traps. More C. quinquefasciatus responded to foot odor collected on nylon stockings than to clean nylon stockings ($P < 0.05$). Significantly more **mosquitoes** were caught in a CFG trap baited with **carbon dioxide** than in traps with either human foot odor, acetone or butyric acid. In an outdoor situation, a **carbon dioxide** baited CDC unlit trap collected over 12 times more C. quinquefasciatus than an unbaited CDC unlit trap and nine times more **mosquitoes** than CDC traps baited with 1-octen-3-ol alone ($P < 0.05$). The no. of **mosquitoes** caught in a CDC trap baited with 1-octen-3-ol did not differ significantly from that of the unbaited CDC trap ($P > 0.05$). The Afrotropical C. quinquefasciatus respond significantly better to traps baited with **carbon dioxide** than to either octenol, acetone or butyric acid, and human foot odor contains stimuli to which C. quinquefasciatus is attracted under field conditions.

IT **124-38-9, Carbon dioxide**, biological studies
3391-86-4, 1-Octen-3-ol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(response of Culex quinquefasciatus to traps baited with **carbon dioxide**, 1-octen-3-ol, acetone, butyric acid and human foot odor)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr l44 4

L44 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:382508 HCAPLUS
DOCUMENT NUMBER: 127:63419
TITLE: Electrophysiological responses from receptor neurons in **mosquito** maxillary palp sensilla
AUTHOR(S): Grant, Alan J.; O'connell, Robert J.
CORPORATE SOURCE: Worcester Foundation for Biomedical Research, Shrewsbury, MA, 01545, USA
SOURCE: Ciba Found. Symp. (1996), 200(Olfaction in Mosquito-Host Interactions), 233-253
CODEN: CIBSB4; ISSN: 0300-5208
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

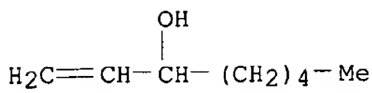
AB The authors recently completed an electrophysiol. study of the receptor neurons found in the sensilla basiconica on the maxillary palps of **mosquitoes**. These results describe a class of receptor neurons whose properties could provide the afferent input required for some aspects of **CO2**-modulated host-locating behavior. First, these neurons have apparent thresholds (150-300 ppm) which are at, or below, the concn. of **CO2** (300-330ppm) normally reported for ambient air. Second, their concn.-response functions are steep, such that small (50 ppm) fluctuations in concn. elicit reliable changes in activity. Third, they behave like abs. **CO2** detectors in that their ability to respond to step increases in **CO2** concn. is little influenced by the background concn. of **CO2**. And fourth, a linear extrapolation of the obsd. response function to the levels that might be expected near vertebrate hosts suggests that these neurons have sufficient dynamic range to cover those **CO2** concns. that should be encountered during a large portion of the behavior likely involved in host location. The **mosquito CO2** receptor neuron thus has an appropriately low threshold and a steep concn.-response function, it is not desensitized by ambient levels of stimulation, and it has a dynamic range appropriate for the distribution of **CO2** concns. expected in the environment. In addn., this sensillum contains two other receptor neurons, neither of which respond to **CO2**. One of these neurons responds to stimulation with very low doses of another behaviorally relevant compd., 1-octen-3-ol.

IT **124-38-9, Carbon dioxide,** biological studies
3391-86-4, 1-Octen-3-ol
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(electrophysiol. responses from receptor neurons in **mosquito** maxillary palp sensilla)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)

O=C=O

RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



=> d ibib abs hitstr l44 5

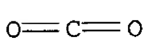
L44 ANSWER 5 OF 7 HCAPLUS

ACCESSION NUMBER: 1996:321669 HCAPLUS
DOCUMENT NUMBER: 125:3535
TITLE: Evaluation of light traps combined with **carbon dioxide** and 1-octen-3-ol to collect anophelines in Venezuela
AUTHOR(S): Rubio-Palis, Yasmin
CORPORATE SOURCE: Division de Investigaciones, Escuela de Malariologia y Saneamiento Ambiental "Dr Arnoldo Gabaldon", Maracay, 2101-A, Venez.
SOURCE: J. Am. Mosq. Control Assoc. (1996), 12(1), 91-96
CODEN: JAMAET; ISSN: 8756-971X
DOCUMENT TYPE: Journal
LANGUAGE: English

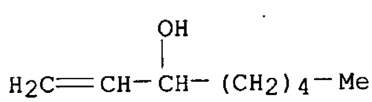
AB A 6-mo study was carried out in northcentral Venezuela to evaluate the efficiency of the CDC light trap and the updraft UV (UV) light trap combined with **CO2** or 1-octen-3-ol (or both) and human baits to sample outdoor Anopheles aquasalis and Anopheles albimanus populations. The human baits caught far more **mosquitoes** than did any of the other trapping methods. Comparing each of the trapping methods to the human bait catches, UV light trap + **CO2** gave a closer correspondence of the ratio of A. aquasalis to A. albimanus compared with the ratio found in human baits than did any of the other trapping methods. The mean parous rate was significantly lower in human bait catches than in all of the trapping methods except for A. aquasalis in UV light trap with **CO2**. Thus, UV light trap with **CO2** was the most reliable substitute for human bait catches.

IT **124-38-9, Carbon dioxide,** biological studies
3391-86-4, 1-Octen-3-ol
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(UV light traps combined with **carbon dioxide** and octenol to collect anophelines in Venezuela)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



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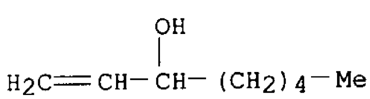
L44 ANSWER 6 OF 7 HCAPLUS
ACCESSION NUMBER: 1994:185346 HCAPLUS
DOCUMENT NUMBER: 120:185346
TITLE: Response of **mosquitoes** to **carbon dioxide** and 1-octen-3-ol in southeast Queensland, Australia
AUTHOR(S): Kemme, Julius A.; Van Essen, Pieter Harm A.; Ritchie, Scott A.; Kay, Brian H.
CORPORATE SOURCE: Dep. Entomol., Agric. Univ., Wageningen, 6700 EH, Neth.
SOURCE: J. Am. Mosq. Control Assoc. (1993), 9(4), 431-5
CODEN: JAMAET; ISSN: 8756-971X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Encephalitis vector surveillance (EVS) traps were used to study the attractant effect of **CO_2** and 1-octen-3-ol (I) on **mosquitoes** at 2 different locations in southeast Queenslands. Octenol alone was only slightly attractive for Aedes vigilax. There was a significant increase in the nos. of A. vigilax and A. funereus caught when octenol was added to **CO_2**, although catches of Culex annulirostris and C. sitens did not change significantly. The size and age compn. of A. vigilax attracted by **CO_2** and by octenol were comparable. Thus, octenol is a supplement to **CO_2** baited EVS traps for **mosquito**-based arbovirus surveillance in southeast Queenslands.

IT **127523-74-4**
RL: BIOL (Biological study)
(as **mosquito** attractant, in Australia)
RN 127523-74-4 HCAPLUS
CN 1-Octen-3-ol, mixt. with carbon dioxide (9CI) (CA INDEX NAME)

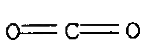
CM 1

CRN 3391-86-4
CMF C8 H16 O



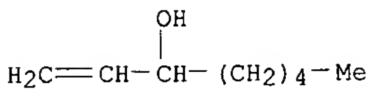
CM 2

CRN 124-38-9
CMF C O2

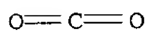


IT **3391-86-4**, 1-Octen-3-ol
RL: BIOL (Biological study)
(**carbon dioxide** and, as **mosquito** attractant, in Australia)
RN 3391-86-4 HCAPLUS

CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IT **124-38-9, Carbon dioxide**, biological studies
RL: BIOL (Biological study)
(octenol and, as **mosquito** attractant, in Australia)
RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)

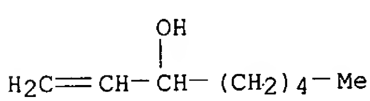


=> d ibib abs hitstr l44 7

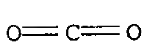
L44 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:2453 HCAPLUS
DOCUMENT NUMBER: 118:2453
TITLE: Evaluation of **carbon dioxide** and 1-octen-3-ol as **mosquito** attractants
AUTHOR(S): Vythilingam, Indra; Lian, Chiang Geok; Thim, Chan Seng
CORPORATE SOURCE: Div. Med. Entomol., Inst. Med. Res., Kuala Lumpur, Malay.
SOURCE: Southeast Asian J. Trop. Med. Public Health (1992), 23(2), 328-31
CODEN: SJTMAK; ISSN: 0125-1562
DOCUMENT TYPE: Journal
LANGUAGE: English

AB CDC light traps were used to study the attractant effect of **CO2** and 1-octen-3-ol on trap catches of **mosquito** populations at three different locations in Malaysia. There was a significant increase in the no. of **mosquitos** caught in traps baited with **CO2** and **CO2** with 1-octen-3-ol. The no. of **mosquitos** caught in the CDC light trap and in the CDC light trap baited with 1-octen-3-ol alone were very few. 1-Octen-3-ol and **CO2** acted synergistically in attracting significantly greater nos. of Culex tritaeniorhynchus. However Anopheles sp. were not very attracted to light traps even with attractants added to them.

IT **3391-86-4**, 1-Octen-3-ol
RL: BIOL (Biological study)
(as **mosquito** attractant, **carbon dioxide** and)
RN 3391-86-4 HCAPLUS
CN 1-Octen-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IT **124-38-9, Carbon dioxide**, biological studies
RL: BIOL (Biological study)
(as **mosquito** attractant, octenol and)
RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



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=> D TI PN IN 1-7

L65  ANSWER 1 OF 7  USPATFULL
TI     4-alkenyl-and 4-alkynyloxindoles
PI     US 6303793           B1   20011016
IN     Chen, Yi, Nutley, NJ, United States
       Dermatakis, Apostolos, North Brunswick, NJ, United States
       Liu, Jin-Jun, Warren, NJ, United States
       Luk, Kin-Chun, North Caldwell, NJ, United States

L65  ANSWER 2 OF 7  USPATFULL
TI     4-alkenyl-and 4-alkynyloxindoles
PI     US 6252086           B1   20010626
IN     Chen, Yi, Nutley, NJ, United States
       Dermatakis, Apostolos, North Brunswick, NJ, United States
       Luk, Kin-Chun, North Caldwell, NJ, United States

L65  ANSWER 3 OF 7  USPATFULL
TI     4-Alkenyl- and 4-alkynyloxindoles
PI     US 6130239                20001010
IN     Chen, Yi, Nutley, NJ, United States
       Corbett, Wendy Lea, Randolph, NJ, United States
       Dermatakis, Apostolos, North Brunswick, NJ, United States
       Liu, Jin-Jun, Warren, NJ, United States
       Luk, Kin-Chun, North Caldwell, NJ, United States
       Mahaney, Paige E., Montclair, NJ, United States
       Mischke, Steven Gregory, Florham Park, NJ, United States

L65  ANSWER 4 OF 7  USPATFULL
TI     Repellent for ants
PI     US 6071973                20000606
IN     Vander Meer, Robert K., Gainesville, FL, United States
       Banks, William A., Gainesville, FL, United States
       Lofgren, Clifford S., Gainesville, FL, United States

L65  ANSWER 5 OF 7  USPATFULL
TI     Repellents for ants
PI     US 5721274                19980224
IN     Vander Meer, Robert K., Gainesville, FL, United States
       Banks, William A., Gainesville, FL, United States
       Lofgren, Clifford S., Gainesville, FL, United States

L65  ANSWER 6 OF 7  USPATFULL
TI     Repellents for ants
PI     US 5648390                19970715
IN     Vander Meer, Robert K., Gainesville, FL, United States
       Banks, William A., Gainesville, FL, United States
       Lofgren, Clifford S., Gainesville, FL, United States

L65  ANSWER 7 OF 7  USPATFULL
TI     Repellents for ants
PI     US 5587401                19961224
IN     Vander Meer, Robert K., Gainesville, FL, United States
       Banks, William A., Gainesville, FL, United States
       Lofgren, Clifford S., Gainesville, FL, United States
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=> d ibib abs hitstr 3

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L65  ANSWER 3 OF 7  USPATFULL
ACCESSION NUMBER:        2000:134906  USPATFULL
TITLE:                   4-Alkenyl- and 4-alkynyloxindoles
INVENTOR(S):             Chen, Yi, Nutley, NJ, United States
                         Corbett, Wendy Lea, Randolph, NJ, United States
                         Dermatakis, Apostolos, North Brunswick, NJ, United
                         States
                         Liu, Jin-Jun, Warren, NJ, United States
                         Luk, Kin-Chun, North Caldwell, NJ, United States
                         Mahaney, Paige E., Montclair, NJ, United States
                         Mischke, Steven Gregory, Florham Park, NJ, United
                         States
PATENT ASSIGNEE(S):      Hoffmann-La Roche Inc., Nutley, NJ, United States (U.S.
                         corporation)

                              NUMBER        KIND    DATE
                         ---------------- ------ --------
PATENT INFORMATION:      US 6130239              20001010
APPLICATION INFO.:       US 1999-464502          19991215  (9)

                                NUMBER         DATE
                         ------------------ --------
PRIORITY INFORMATION:    US 1998-112591P    19981217 (60)
                         US 1999-149073P    19990816 (60)
DOCUMENT TYPE:           Utility
FILE SEGMENT:            Granted
PRIMARY EXAMINER:        Aulakh, Charanjit S.
LEGAL REPRESENTATIVE:    Johnston, George W., Rocha-Tramaloni, Patricia S.
NUMBER OF CLAIMS:        42
EXEMPLARY CLAIM:         1
LINE COUNT:              4523
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB       Disclosed are novel 4-alkenyl- and 4-alkynyl oxindoles having the
         formula ##STR1## and the pharmaceutically acceptable salts thereof,
         wherein R.sup.1, R.sup.2, R.sup.3, a, b, and X are as defined herein.
         These compounds inhibit cyclin-dependent kinases (CDKs), in particular
         CDK2. These compounds and their pharmaceutically acceptable salts, and
         prodrugs of said compounds, are anti-proliferative agents useful in the
         treatment or control of cell proliferative disorders, in particular
         cancer, more particularly, the treatment or control of breast and colon
         tumors. Also disclosed are pharmaceutical compositions containing the
         compounds of formula I and II as well as intermediates useful in the
         preparation of the compounds of formula I and II.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT   818-72-4, 1-Octyn-3-ol 32556-70-0, (R)-(+)-1-Octyn-3-ol
       32556-71-1, (S)-(-)-1-Octyn-3-ol
         (prepn. of 4-alkynyl-3-(pyrrolylmethylene)-2-oxoindole
         anti-proliferatives and analogs by reaction of alkynes with the
         corresponding 4-halo-2-oxoindoles)
RN   818-72-4  USPATFULL
CN   1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI)  (CA INDEX NAME)
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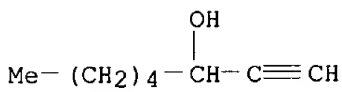
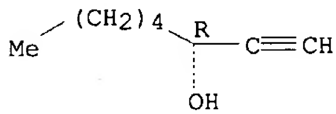


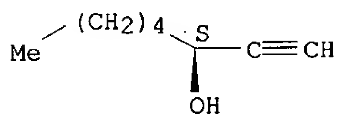
RN 32556-70-0 USPATFULL
CN 1-Octyn-3-ol, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 32556-71-1 USPATFULL
CN 1-Octyn-3-ol, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> D KWIC 3

L65 ANSWER 3 OF 7 USPATFULL

DETD . . . reaction was quenched by the addition of a saturated ammonium chloride solution in water (15 mL), and the tetrahydrofuran was **evaporated** in vacuo. The residue was then extracted with ethyl acetate (3.times.30 mL), and the combined organic extracts were dried over. . .

DETD . . . reaction was quenched by the addition of a saturated ammonium chloride solution in water (15 mL), and the tetrahydrofuran was **evaporated** in vacuo. The residue was then extracted with ethyl acetate (3.times.30 mL), and the combined organic extracts were dried over. . .

DETD . . . drops of acetic acid were added. The solution was washed with saturated sodium bicarbonate (3.times.25 mL) and the solvent was **evaporated** to yield the desired methyl ester which was used without further purification.

DETD . . . 20 equiv.) was added, and the reaction was stirred at room temperature for 1 to 24 hours. The tetrahydrofuran was **evaporated** and 10 mL water was added. The aqueous layer was extracted with ethyl acetate (2.times.10 mL) and the aqueous layer. . . washed with a saturated solution of sodium chloride and were then dried over magnesium sulfate. The ethyl acetate was then **evaporated** and the product was recrystallized from ethanol.

DETD . . . 20 minutes to 24 hours, and was then quenched by the addition of water (10 mL). The tetrahydrofuran was then **evaporated** and the aqueous layer was extracted with ethyl acetate (3.times.30 mL) to yield the carboxamide as a white crystalline solid. . .

DETD . . . were added successively. After stirring for 150 min. at room temperature, 20 mL water was added and the THF was **evaporated**

in vacuo. The aqueous layer was then extracted with diethyl ether (4.times.50 mL), and the combined organic layers were dried. . . .

DETD . . . mixture was added water (10 mL). The mixture was then stirred for 2 h at 20.degree. C. The solvent was **evaporated**, and the aqueous layer was washed with ether (3.times.15 mL). The water was lyophillized, and the resulting 3-hydroxy-1-propenyl-boronic acid was. . .

DETD . . . mixture was added water (10 mL). The mixture was then stirred for 2 h at 20.degree. C. The solvent was **evaporated**, and the aqueous layer was washed with ether (3.times.15 mL). The water was lyophillized, and the resulting 4-hydroxy-1-butenyl-boronic acid was. . .

DETD . . . 32%). To this free base in methanol (2 mL) was added 4N HCl in dioxane (0.02 mL) (Aldrich). Mixture was **evaporated** to dryness to give the hydrochloride salt.

DETD . . . MeOH in CH.sub.2 Cl.sub.2). To the free base in methanol (2 mL) was added 4N HCl in dioxane (0.02 mL). **Evaporation** of solvent to dryness gave the hydrochloride salt. (Yield 30 mg, 32%).

DETD . . . MeOH in CH.sub.2 Cl.sub.2). To the free base in methanol (2 mL) was added 4N HCl in dioxane (0.04 mL). **Evaporation** of solvent to dryness gave the hydrochloride salt. (Yield 65.6 mg, 41%).

DETD . . . heated at reflux for 4.5 hrs and then stirred at room temperature for another 17 hr. The solvent was then **evaporated** in vacuo and the resulting intermediate was diluted in 60 mL of THF cooled at 0.degree. C. and BF.sub.3.Et.sub.2 O. . . .

DETD . . . CH.sub.2 Cl.sub.2 and combined CH.sub.2 Cl.sub.2 layer was extracted with aqueous saturated solution of NaHCO.sub.3, dried over Na.sub.2 SO.sub.4 and **evaporated** in vacuo. The residue was directly treated according to method X with potassium tert-butoxide (660 mg, 5.88 mmol) and diazomethyl-phosphonic-acid-dimethylester. . . .

DETD . . . (20% MeOH in CH.sub.2 Cl.sub.2). To free base in methanol (2 mL) was added 4N HCl in dioxane (0.01 mL). **Evaporation** of solvent to dryness gave the hydrochloride salt. (Yield 12 mg, 24%).

DETD . . . (10% MeOH in CH.sub.2 Cl.sub.2). To free base in methanol (3 mL) was added 4N HCl in dioxane (0.03 mL). **Evaporation** of solvent to dryness gave the hydrochloride salt. (Yield 54.5 mg, 55%).

DETD . . . MeOH in CH.sub.2 Cl.sub.2). To the free base in methanol (2 mL) was added 4N HCl in dioxane (0.04 mL). **Evaporation** of solvent to dryness gave the hydrochloride salt. (Yield 49 mg, 50%).

DETD . . . MeOH in CH.sub.2 Cl.sub.2). To the free base in methanol (2 mL) was added 4N HCl in dioxane (0.05 mL). **Evaporation** of solvent to dryness gave the hydrochloride salt. (Yield 41 mg, 42%).

DETD . . . and washed with methanol. To the free base in methanol (2 mL) was added 4N HCl in dioxane (0.04 mL). **Evaporation** of solvent to dryness gave the desired hydrochloride salt. (Yield 57 mg, 36%).

DETD . . . and washed with methanol. To the free base in methanol (3 mL) was added 4N HCl in dioxane (0.03 mL). **Evaporation** of solvent to dryness yielded the hydrochloride salt. (Yield 50 mg, 33%).

DETD . . . MeOH in CH.sub.2 Cl.sub.2). To the free base in methanol (3 mL) was added 4N HCl in dioxane (0.04 mL). **Evaporation** of solvent to dryness gave rac-(Z)-1,3-Dihydro-5-fluoro-4-[3-(2-hydroxy-propylamino)-1-propynyl]-3-[(3-methoxy-1H-pyrrol-2-yl)methylene]-2H-indol-2-one hydrochloride salt. (Yield 39 mg, 35%).

DETD . . . MeOH in CH.sub.2 Cl.sub.2). To the free base in methanol (2 mL) was added 4N HCl in dioxane (0.06 mL). **Evaporation** of solvent to dryness gave rac-(Z)-3-[(4-Acetyl-1H-pyrrol-2-yl)methylene]-1,3-dihydro-5-fluoro-4-[3-(2-hydroxy-propylamino)-1-propynyl]-2H-indol-2-one hydrochloride salt. (Yield 39 mg, 35%).

DETD . . . Vol. 246 (1997) pp. 581-601 and references therein). Recombinant active human Cyclin E/CDK2 complexes were partially purified

from extracts of **insect** cells. The active Cyclin E/CDK2 was added to the Rb-coated FlashPlates along with .sup.33 P-ATP and dilutions of test compounds.. . .

IT 51-35-4, trans-L-Hydroxyproline 75-56-9, Propylene oxide, reactions 77-75-8, 3-Methyl-1-pentyn-3-ol 77-76-9, 2,2-Dimethoxypropane 78-27-3, 1-Ethynyl-1-cyclohexanol 96-33-3, Methyl acrylate 106-96-7, Propargyl bromide 107-19-7, Propargyl alcohol 107-54-0 115-19-5, 3-Methyl-1-butyn-3-ol **818-72-4**, 1-Octyn-3-ol 927-74-2, 3-Butyn-1-ol 1003-29-8, 2-Pyrrolecarboxaldehyde 1066-54-2, Trimethylsilyl acetylene 1197-51-9 2450-71-7, Propargyl amine 2799-21-5 2914-69-4, (S)-But-3-yn-2-ol 2978-58-7, 3-Amino-3-methyl-1-butyne 3234-64-8, 3-Amino-3-ethyl-1-pentyne 3973-18-0, 3-(2-Hydroxyethoxy)-1-propyne 4079-68-9, N,N-Diethyl propargylamine 4187-86-4, 1-Pentyn-3-ol 4339-05-3 5221-62-5, 2-Propynylurea 5390-04-5, 4-Pentyn-1-ol 5799-75-7, 1-(2-Propynyl)piperidine 5799-76-8, 3-(4-Morpholinyl)-1-propyne 6339-66-8, 5-Formyl-4-methyl-1H-pyrrole-3-carboxylic acid ethyl ester 7223-38-3, N,N-Dimethyl propargylamine 13580-09-1, 3-[(2,2-Dimethyl-1,3-dioxolan-4-yl)methoxy]-1-propyne 14254-57-0, Isonicotinoyl chloride 16168-92-6, 4-Acetyl-2-formylpyrrole 16754-39-5, Propargyl carbamate 17356-19-3, 1-Ethynylcyclopentanol 21233-94-3, 5-Hexynamide 21565-82-2, Methyl 4-pentynoate 23235-05-4, 2-(Acetylamino)-4-pentynoic acid ethyl ester 29943-42-8, Tetrahydro-4H-pyran-4-one **32556-70-0**, (R)-(+)-1-Octyn-3-ol **32556-71-1**, (S)-(-)-1-Octyn-3-ol 35161-71-8, N-Methyl propargyl amine 39054-35-8 39098-97-0, 2-Thiopheneacetyl chloride 42969-65-3, (R)-3-Butyn-2-ol 54764-96-4 65881-41-6, N-Propargylacetamide 68282-53-1, 4-Methyl-5-imidazolecarboxaldehyde 69610-41-9, (S)-N-Boc-2-formylpyrrolidine 73365-02-3, (R)-N-Boc-2-formylpyrrolidine 77758-51-1, Methyl 5-hexynoate 79099-07-3, N-Boc-4-piperidone 81939-73-3, (S)-Pent-4-yn-2-ol 90104-54-4, (1,1-Dimethyl-2-propynyl)carbamic acid methyl ester 95124-07-5, Dimethyl propargyl malonate 95715-87-0, tert-Butyl (R)-4-formyl-2,2-dimethyloxazolidine-3-carboxylate 98142-64-4, 4-Pentynamide 99365-48-7, 4-Bromo-1,3-dihydro-2H-indol-2-one 102308-32-7, tert-Butyl-(S)-4-formyl-2,2-dimethyl-3-oxazolidinecarboxylate 108149-62-8 131387-94-5, 1,3-Dihydro-1-hydroxy-4-iodo-2H-indol-2-one 139372-09-1 159407-28-0, (R)-4-Pentyn-2-ol 179536-52-8, 1,3-Dihydro-4-iodo-2H-indol-2-one 275387-46-7, 3-Hydroxy-1-propenylboronic acid 275387-48-9
(prepn. of 4-alkynyl-3-(pyrrolylmethylene)-2-oxoindole anti-proliferatives and analogs by reaction of alkynes with the corresponding 4-halo-2-oxoindoles)

=> d ibib abs hitstr 7

L65 ANSWER 7 OF 7 USPATFULL

ACCESSION NUMBER: 96:118613 USPATFULL

TITLE: Repellents for ants

INVENTOR(S): Vander Meer, Robert K., Gainesville, FL, United States
Banks, William A., Gainesville, FL, United States
Lofgren, Clifford S., Gainesville, FL, United States

PATENT ASSIGNEE(S): The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5587401		19961224
APPLICATION INFO.:	US 1995-471354		19950606 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-286111, filed on 4 Aug 1994 which is a continuation of Ser. No. US 1992-925685, filed on 7 Aug 1992, now abandoned

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Pak, John

LEGAL REPRESENTATIVE: Silverstein, M. Howard, Fado, John, Poulos, Gail E.

NUMBER OF CLAIMS: 1

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)

LINE COUNT: 619

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

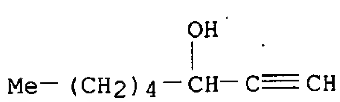
AB A method has been discovered for repelling ants by treating objects or areas with effective amounts of compositions that include (a) one or more C.sub.6 to C.sub.8 carboxylic acids; (b) one or more C.sub.6 to C.sub.14 alcohols; (c) one or more esters which are reaction products of (a) and (b) or an ester which is a reaction product of the repellents and other carboxylic acids or alcohols; (d) one or more C.sub.6 to C.sub.11 carboxylic acid esters; (e) one or more C.sub.6 to C.sub.14 ketones; or (f) mixtures thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **818-72-4**, 1-Octyn-3-ol
(ant repellent)

RN 818-72-4 USPATFULL

CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



=> D KWIC 7

L65 ANSWER 7 OF 7 USPATFULL

SUMM . . . fire ant stings are also blamed for human deaths each year. Consequently, there is much interest in controlling these troublesome **insects**.

SUMM . . . research and resources being expended through the years to develop reagents and methods for controlling fire ants. While many

useful **insecticide** formulations have resulted from this research, the problems associated with ants still exist. This is primarily because the relief gained by **insecticide** use is only temporary owing to the high reproductive capabilities, the efficient foraging behavior, and the ecological adaptability, of ants. While effective for controlling ants in relatively small defined areas, the use of **insecticides**, because of their toxicity, can create other problems. For example, some **insecticides**, which are effective for controlling ants, are banned from use because they pose a significant threat to the environment, including. . . birds and animals. Furthermore, there is pressure from environmental groups to stop, or at least substantially reduce, the application of **insecticides** in general, and to develop non-toxic reagents for controlling **insects**. One type of reagent which would be of great interest would be a non-toxic reagent which could repel, or keep. . .

DETD . . . will most likely be less volatile because of its higher molecular weight. Furthermore, hydrolysis of the ester would provide a **slow release** of the repellent compounds.

DETD . . . carbohydrates, such as corn starch, dextrans, and cellulose. The carrier may also be a solid substance, preferably one which will **slowly release** the repellent composition over a period of time. Non-limiting examples of **slow release** materials which are suitable for use herein include latex particles, capillary tubes, and microencapsulation. Of course, the type of area. . .

DETD . . . was placed in a Y-tube olfactometer. The olfactometer used herein is the one described in Isolation of the Trail Recruitment **Pheromone** of Solenopsis invicta, by R. K. Vander Meer, F. Alvarez, and C. S. Lofgren, Journal of Chemical Ecology, Vol. 14,. . .

DETD . . . another five capsules were treated with 200 uL of the same solution, and an additional five capsules were untreated. Five **fly** pupae were added to each of the 15 capsules, and the capsules were sealed with paraffin wax. Five fire ant. . .

DETD The above experiment was repeated except that live **flies** were placed inside of the capsules to give the ants incentive to invade the capsules. The capsules were tested in. . .

IT 78-69-3, Tetrahydrolinalool 78-70-6, Linalool 106-68-3, 3-Octanone 110-43-0, 2-Heptanone 111-13-7, 2-Octanone 111-70-6, 1-Heptanol 111-71-7, Heptanal 111-87-5, 1-Octanol, uses 112-30-1, 1-Decanol 112-31-2, Decanal 112-53-8, 1-Dodecanol 112-72-1, 1-Tetradecanol 123-96-6, 2-Octanol 124-07-2, Octanoic acid, uses 124-13-0, Octanal 124-19-6, Nonanal 124-25-4, Tetradecanal 143-08-8, 1-Nonanol 543-49-7, 2-Heptanol 589-62-8, 4-Octanol 589-63-9, 4-Octanone 589-98-0, 3-Octanol 628-99-9, 2-Nonanol **818-72-4**, 1-Octyn-3-ol 821-55-6, 2-Nonanone 1669-44-9, 3-Octen-2-one 2363-89-5, 2-Octenal 2918-13-0, 1-Hepten-3-one 3391-86-4, 1-Octen-3-ol 4312-99-6, 1-Octen-3-one 4536-23-6, 2-Methylhexanoic acid 4643-27-0, 2-Octen-4-one 4706-81-4, 2-Tetradecanol 4798-61-2, 2-Octen-4-ol 4938-52-7, 1-Hepten-3-ol 6169-06-8, S-(+)-2-Octanol 6175-49-1, 2-Dodecanone 7383-19-9, 1-Heptyn-3-ol 10203-28-8, 2-Dodecanol 13419-69-7, trans-2-Hexenoic acid 14916-80-4, 3-Octyn-1-ol 18185-81-4, 3-Octen-1-ol 21964-44-3, 1-Nonen-3-ol 22104-78-5, 2-Octen-1-ol 24415-26-7, 1-Nonen-3-one 26119-02-8, 1-Heptyn-3-one 27593-19-7, 1-Octyn-3-one 30913-62-3 31795-37-6, 1-Nonen-3-yl acetate 41547-22-2 60671-71-8, 3-Octenal 64275-73-6 67300-98-5 76649-14-4, 3-Octen-2-ol
(ant repellent)

```
=> D TI PN IN 1-2

L71  ANSWER 1 OF 2  USPATFULL
TI     Chemical composition that attract arthropods
PI     US 2002028191      A1    20020307
IN     Bernier, Ulrich R., Gainesville, FL, UNITED STATES
       Barnard, Donald R., Gainesville, FL, UNITED STATES
       Booth, Matthew M., Gainesville, FL, UNITED STATES
       Kline, Daniel L., Gainesville, FL, UNITED STATES
       Posey, Kenneth H., Gainesville, FL, UNITED STATES
       Yost, Richard A., Gainesville, FL, UNITED STATES

L71  ANSWER 2 OF 2  USPATFULL
TI     Chemical composition that attract arthropods
PI     US 6267953         B1    20010731
IN     Bernier, Ulrich R., Gainesville, FL, United States
       Kline, Daniel L., Gainesville, FL, United States
       Barnard, Donald R., Gainesville, FL, United States
       Posey, Kenneth H., Gainesville, FL, United States
       Booth, Matthew M., Gainesville, FL, United States
       Yost, Richard A., Gainesville, FL, United States
```

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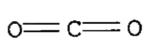
L71 ANSWER 2 OF 2 USPATFULL
ACCESSION NUMBER: 2001:121061 USPATFULL
TITLE: Chemical composition that attract arthropods
INVENTOR(S): Bernier, Ulrich R., Gainesville, FL, United States
Kline, Daniel L., Gainesville, FL, United States
Barnard, Donald R., Gainesville, FL, United States
Posey, Kenneth H., Gainesville, FL, United States
Booth, Matthew M., Gainesville, FL, United States
Yost, Richard A., Gainesville, FL, United States
PATENT ASSIGNEE(S): The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6267953	B1	20010731	
APPLICATION INFO.:	US 1999-304362		19990504	(9)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Dees, Jose' G.
ASSISTANT EXAMINER: Choi, Frank
LEGAL REPRESENTATIVE: Silverstein, M. Howard, Fado, John D., Poulos, Gail E.
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
LINE COUNT: 2259
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods employing the compositions for attracting arthropods. The compositions comprise at least one compound of formula I and at least one compound from group II.

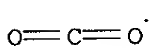
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **124-38-9D**, Carbon dioxide, mixt. contg. **259734-99-1** (mosquito attractant)
RN 124-38-9 USPATFULL
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 259734-99-1 USPATFULL
CN Propanoic acid, 2-hydroxy-, mixt. with carbon dioxide (9CI) (CA INDEX NAME)

CM 1

CRN 124-38-9
CMF C O2



CM 2

CRN 50-21-5

CMF C3 H6 O3

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    OH
    |
Me— CH— CO2H
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=> D KWIC 2

L71 ANSWER 2 OF 2 USPATFULL

SUMM . . . plagued people throughout history. Fast intercontinental travel and trade have enabled the importation of nonindigenous insect pests (e.g., species of **mosquitoes**, such as Aedes albopictus, the Asian Tiger **mosquito**) into the United States. As a result, the U.S. must face the task of controlling numerous species of nuisance pests, such as arthropods and, more specifically, **mosquitoes**. Some of these insects spread disease and, thus, are of great medical and veterinary importance. Control of these pests is. . .

SUMM The primary focus of this invention is the control or reduction of the population of **mosquitoes**. At least three "generations" of control methods have been developed over the years. The first generation of control methods comprise. . . air. These chemicals may be classified as either adulticides or larvicides and are intended to attack and kill the adult **mosquito** or its larva, respectively. These chemicals usually have an inherent toxicity, which is potentially injurious to the environment, to marine. . .

SUMM . . . this product. First, it was inherently toxic and potentially harmful to the environment. Second, because of rapid turnover of the **mosquito** population and the selection of resistant genes by Dursban, insects could develop a resistance to the chemicals. **Mosquitoes** ultimately develop an immunity to adulticides of the same chemical family. This situation is referred to as "cross resistance" and. . .

SUMM As a departure from the chemical adulticides and larvicides, a second generation of **mosquito** control product was developed. This second generation is known as insect growth regulators. Their purpose is to prevent the immature insect from transforming into an adult. This class of **mosquito** control product allows the larva to enter into its pupa stage but prevent the pupa from developing into an adult.. . .

SUMM . . . larvae of Lepidoptera (moths) that are to be destroyed. More recently, a new variety has been uncovered for use against **mosquito** and black fly larvae. This is Bacillus thuringiensis Berliner var. israelensis and its accompanying proteinaceous parasporal particles which contain protoxin.. . . bacillus does not have a sustained release--it is essentially "one shot"--and hence re-applications are often necessary to insure an effective **mosquito** control program. This is time consuming and expensive, and extensive surveillance is needed to target all breeding areas.

SUMM Besides these existing chemical and microbial insecticides, other devices and methods are known for the control or destruction of **mosquitos** and other aquatic pests.

SUMM For **mosquito** control purposes, the BACTIMOS.TM. (B.t.i.) is invariably mixed with water and is applied to large areas, using airplanes or helicopters.. . . need for an alternate delivery system for the myriad of ponds and other small bodies of water, as recognized in **MOSQUITO** NEWS in 1948.

SUMM . . . a molecular weight of approximately 28 megadaltons. The aforementioned methods are efficient, but are performed at high monetary costs to **mosquito** districts and taxpayers. Ultimately, the **mosquitoes** sought to be controlled are those noticed readily by humans, i.e. **mosquitoes** and blood-sucking flies that draw blood meals from humans.

SUMM Thus, numerous severe problems exist with the **mosquito** extermination methods that use chemical insecticides. As such, an alternative approach toward arthropod surveillance and control has been developed. One such promising method is the use of chemicals as attractants for **mosquitoes** and other arthropods that prey on human and animal hosts. The combination of highly effective chemical attractants with efficient traps. . .

SUMM Current surveillance techniques rely on light traps or other traps which are relatively inefficient in **mosquito** collection. Sentinel chickens are used to assess transmission risk of encephalitis to humans in a local area. Better traps via. . .

SUMM Carbon dioxide has been shown to attract **mosquitoes**. Willis, J. Exp. Zool, 121, 149-179 (1952), discloses that Aedes aegypti (**mosquitoes**) are attracted to carbon dioxide. From amputation experiments on female Aedes aegypti, it was discovered that carbon dioxide receptors were located on the antennae. The role of carbon dioxide in the attraction of **mosquitoes** to hosts also has been the subject of numerous laboratory studies. Rudolfs, N. J. Agric. Exp. Sta. Bull., 367 (1922),. . .

SUMM Compositions consisting of lactic acid analogues and carbon dioxide have also been shown to attract **mosquitoes**. Carlson, J. Econ. Entomol., 66, 329-331 (1973), discloses that some tested analogues of lactic acid had equivalent attraction to L-lactic. . .

SUMM . . . the use of methanol for the invention described in this application. It is clearly stated that the acetone solvent was **evaporated** from the filter paper prior to the carbon dioxide being allowed to pass into the flask. Acetone was chosen for its properties as a solvent, i.e., good ability to dissolve L-lactic acid and high volatility resulting in rapid **evaporation** or drying.

SUMM Lactic acid was shown to attract **mosquitoes** such as virgin Ae. aegypti (**mosquitoes**) by Davis, J. Insect Physiol., 30, 211-15 (1984).

SUMM Gillies, Bull. Entomol. Res., 70, 525-32 (1980), reviews the use of carbon dioxide to activate and attract **mosquitoes**.

SUMM . . . 429-38 (1981), discloses that materials isolated from human hands, other than L-lactic acid, attract female Ae. aegypti and An. quadrimaculatus **mosquitoes**.

SUMM Lactic acid, in combination with phosphorous-containing compounds have been shown to attract **mosquitoes**. Ikeshoji, Jpn. J. Sanit. Zool., 38, 333-38 (1987), discloses lactic acid and hempa; lactic acid and metepa; lactic acid, metepa and olive oil; and lactic acid and DDVP attract **mosquitoes**.

SUMM Lactic acid-related compounds have also been tested as **mosquito** attractants by electrophysiology. Davis, J. Insect Physiol., 34, 443-49 (1988), discloses that neurons in the antennae are excited by L-lactic. . .

SUMM It has been shown that carbon dioxide, in combination with other chemicals, serves as an attractant for **mosquitoes**. Takken and Kline, J. Am. Mosq. Control Assoc., 5, 311-6 (1989), disclose 1-octen-3-ol (octenol) and carbon dioxide as **mosquito** attractants. Van Essen, Med. Vet. Entomol., 63-7 (1993), discloses the use of carbon dioxide, octenol, and light to attract several species of **mosquitoes**. Takken, J. Insect Behavior, 10, 395-407 (1997), discloses that a composition consisting solely of carbon dioxide,

acetone and octenol attracts several species of **mosquitoes**.

SUMM . . . discloses that honey extract, octenol, carbon dioxide, L-lactic acid plus carbon dioxide, L-lactic acid plus octenol plus carbon dioxide attract **mosquitoes** well and butanone plus carbon dioxide, and phenol alone are less effective.

SUMM . . . Mosq, Control Assoc., 6, 406-10 (1990), discloses that materials isolated from human skin attract female Ae. aegypti and An. quadrimaculatus (**mosquitoes**), and the level of attraction, transferred to glass, varies from person to person. It also discloses that differences in attraction. . .

SUMM Takken, Insect Sci. Applic., 12, 287-95 (1991), reviews **mosquito** attractants and lists acids, alone or in combination with other amino acids that are attractive for **mosquitoes**.

SUMM . . . carbon dioxide from the human hand is negligible and therefore is not a factor in the attraction of Ae. aegypti (**mosquitoes**) to the human hand.

SUMM . . . Bull. Entomol. Res., 81, 207-11 (1994), discloses that lactic acid in combination with carbon dioxide has been shown to attract **mosquitoes**.

SUMM Charlwood, Ann. Trop. Med. Parasitol., 89, 327-9 (1995), discloses the **mosquito**-mediated attraction of female **mosquitoes** to hosts. Several species of **mosquitoes** were more attracted to a host, e.g., human leg, which already had **mosquitoes** feeding than a host which had no **mosquitoes** feeding on the host (termed "invitation effect"). An apparent **pheromone**, which was given off by the feeding **mosquitoes**, was speculated to attract other **mosquitoes** to the host.

SUMM DeJong and Knols, Experientia, 51, 80-4 (1995), discloses that different malaria **mosquito** species (An. gambiae s.s. and An. atroparvus) prefer different biting sites on the human body. DeJong and Knols, Acta Tropica,. . .

SUMM Geier, in Olfaction in **Mosquito**-Host Interactions, 132-47 (1996), discloses that carbon dioxide alone is an attractant and that lactic acid alone is a mild attractant,. . .

SUMM . . . that carbon dioxide in combination with Limburger cheese, serves as an attractant for female An. gambiae. It was suggested that **mosquitoes** are attracted to odors emanating from feet and ankles and this odor resembles Limburger cheese. It was also suggested that. . .

SUMM McCall, J. Med. Entomol., 33, 177-9 (1996), discloses that Ae. aegypti (**mosquitoes**) were attracted to volatile constituents of mouse odor, but did not identify potential chemicals.

SUMM . . . 87, 151-9 (1997), discloses the use of Limburger cheese (the acid and non-acid solvent extracted fractions) to attract An. gambiae (**mosquitoes**). Nineteen saturated and unsaturated aliphatic fatty acids, ranging in carbon chain lengths from C.sub.2 -C.sub.18 were identified in Limburger cheese.

SUMM Takken and Knots, Annu. Rev. Entomol., 44, 131-57 (1999), reviewed odor-mediated behavior of afrotropical **mosquitoes**, reaffirming carbon dioxide as the best known **mosquito kairomone**.

SUMM Various chemicals have been disclosed as attractants for **mosquitoes**. U.S. Pat. No. 4,818,526 to Wilson discloses the use of dimethyl disulfide and dibutyl succinate and combinations thereof as attractants for Culicidae (**mosquitoes**).

SUMM . . . Balfour (1990) discloses the use of a composition consisting solely of lactic acid, carbon dioxide, water, and heat to attract **mosquitoes**.

SUMM . . . as other components described as equivalent to the glycerol, appear to make the composition substantive, so that it does not **evaporate** immediately in a rapid pulse. However, the active

ingredients from Limburger cheese, which are the attractant chemicals, are not disclosed. . . .

SUMM Several of the above-mentioned chemicals and chemical compositions have been employed to attract any of the hundreds of species of **mosquitoes** and related arthropods that utilize humans and animals as their hosts. In fact, many of the disclosed compositions have been claimed to be active as attractants for **mosquitoes**. The activities of these attractants are often inconsistent and below 50% attraction response in laboratory experiments. More specifically, none of the disclosed compositions have been able to attract **mosquitoes** on a consistent basis as efficiently as, or more efficiently than the human body. As such, the human body has. . . . to provide clues regarding the chemical compositions disclosed. Thus, while chemicals and chemical compositions may have been active in attracting **mosquitoes**, none have been classified as successful for **mosquito** attraction as those reported in this document.

SUMM . . . exists for chemical compositions that can be employed safely in the environment, and that exhibit a synergistic effect for attracting **mosquitoes** wherein the compositions are more efficient than the human body in attracting **mosquitoes**. The present invention satisfies this need. Current **mosquito** traps often use carbon dioxide, which in prior art was needed for efficient collection and surveillance. The present invention obviates the need for large carbon dioxide gas cylinders or dry ice by providing **mosquito** attractants that perform as well as, and more efficiently in place of, carbon dioxide. Although carbon dioxide is not necessary,. . . .

SUMM The present invention provides compositions that efficiently attract arthropods (e.g., **mosquitoes**). Accordingly there is provided a composition comprising:

SUMM The present invention provides compositions that efficiently attract arthropods (e.g., **mosquitoes**). Accordingly there is provided a composition ##STR3##

SUMM The present invention provides methods of attracting arthropods (e.g., **mosquitoes**) comprising the step of exposing the environment with a composition comprising an effective amount of a combination of: ##STR4##

SUMM The present invention provides methods of attracting arthropods (e.g., **mosquitoes**) comprising the step of exposing the environment with a composition comprising an effective amount of a compound of formula I. . . .

SUMM The present invention entails blends of compounds that have not been previously combined, in either volume or composition for attracting **mosquitoes**. The novel combination of compounds of the present invention serve as effective arthropod attractants. The novel compositions of the present. . . .

SUMM It has surprisingly been discovered that the compositions of the present invention are effective in attracting arthropods, e.g., **mosquitoes**. In addition, it has surprisingly been discovered that compositions of the compounds of formula I and the compounds of group II exhibit a synergistic effect in attracting arthropods, e.g., **mosquitoes**. This synergistic effect, in many cases, enables the compositions of the present invention to attract arthropods as well as, or. . . .

SUMM The phylum Arthropoda includes many families of insects that are of a medical and veterinary importance, e.g., **mosquitoes** (Culicidae), blackflies (Simuliidae), sand flies (Phlebotominae), biting midges (Ceratopogonidae), horseflies (Tabanidae), tsetse flies (Glossinidae), stable flies and house flies (Muscidae),. . . .

SUMM A specific Arthropoda is **mosquitoes** (Culicidae), blackflies (Simuliidae), sand flies (Phlebotominae), biting midges

(Ceratopogonidae), horseflies (Tabanidae), tsetse flies (Glossinidae), stable flies and house flies (Muscidae),. . .

SUMM It is appreciated that "**mosquito**" can be any of the **mosquitoes** belonging to the suborder diptera known as Nematocera. This suborder includes the family Culicidae. The 3400 or so species of **mosquitoes** are arranged in 38 genera. The Culicidae are divided into three subfamilies: the Anophelinae, including the well-known genus Anopheles, many species of which are responsible for the transmission of malaria; the Toxorhynchitinae, the large larvae of which eat other **mosquito** larva; and the Culicinae which, with about 2930 species in about 34 genera, are divided into two tribes: the Culicini and the Sabethini. The Culcine **mosquitoes** include such well known genera as Culex, Aedes and Mansonia. The sebethene **mosquitoes** include Sabethes, Wyeomyia and Malaya.

SUMM A specific **mosquitoe** is the genera Culex, Aedes, Psorophora, Wyeomyia, Mansonia, Coquilletidia or Anopheles.

SUMM A specific arthropod is a **mosquito** belonging to the genera Culex, Aedes, Mansonia, Wyeomyia, Psorophora, Coquilletidia or Anopholes.

SUMM wherein the composition is effective to attract **mosquitoes**.

SUMM wherein the composition is effective to attract **mosquitoes**.

SUMM . . . is the surrounding land, air or water (or any combination thereof). The environment (i.e., surrounding area) may contain arthropods (e.g., **mosquitoes**, biting midges, etc) such that an effective amount of the composition will attract a significant portion of the arthropods from. . .

SUMM . . . airflow, 80.degree. F., 60% R.H.) as described by Posey, J. Med. Entomol., 35, 330-334 (1998); and LA is lactic acid. **Mosquitoes** were allowed to settle at least one hour prior to testing. The olfactometer was cleaned after each battery of tests.. . .

DETD Table 1 illustrates the effectiveness (in percentage caught of 75 female **mosquitos**) of lactic acid alone and of acetone alone as attractants for Aedes aegypti. It was shown that 200 .mu.L lactic acid alone attracted an average of 26% of the **mosquitoes**. It was also shown that 500 .mu.L acetone alone, **evaporated** from a 60 mm diameter glass petri dish, attracted an average of 51% of the **mosquitoes**.

DETD . . . compounds (e.g., ketones, carboxylic acids, alcohols, halogenated compounds, aldehydes, alkenes, nitrites, heterocyclic, sulfides, ethers, etc.) as attractants for Aedes aegypti **mosquitoes**. In addition, Table 2 also illustrates the synergistic effectiveness of these compounds with lactic acid as attractants for **mosquitoes**.

DETD . . . different behaviors (e.g.,probing, flight pattern) in attraction. Italicized numbers represent valuesor, when present, average values that capture greater than 50%
of **mosquitoes**. (CK = check or control port):

Compound/CLASS	Response (%)	Response with L-LA (%)	.DELTA. [(Resp with LA) - Resp] (%)

carbon dioxide. . .

DETD Table 3 illustrates the effectiveness of analogues of lactic acid as attractants for **mosquitoes**. In addition, Table 3 illustrates the synergistic effectiveness of these compounds with acetone as attractants for **mosquitoes**.

DETD Table 4 illustrates the effectiveness of humans for attracting Aedes aegypti **mosquitoes**. Data were collected from September 1997-June 1998.

DETD Table 5 illustrates the effectiveness of several compositions as

attractants for **mosquitoes**.

DETD . . . acid (1w) + 42% vs. 200 .mu.g L-lactic acid 54%*
Acetone (B) (1w) + Acetone (1B) +
DMDS (1I)

*Notes: overall, 95.2% **mosquitoes** trapped, .about. 30 .mu.L in DMDS (dimethyl disulfide) insert, giving emission of .about. 100:1 Acetone:DMDS.

DETD . . . formats and mechanisms is to provide release of the attractant over a period of time sufficient to attract arthropods (e.g., **mosquitoes**) effectively, and especially to attract arthropods effectively to an available source of arthropod control material (e.g., insecticide, **pheromone**, microbial agent) which is effective against **mosquitoes**, and the like, as described above.

DETD . . . present invention with an insecticide provides a means of local extermination, not requiring wide-disbursement of the insecticide. Addition of a **slow release** chemical mechanism, such as paraffin, or other suitable viscous chemical (e.g., glycerol) provides a means to reduce the **evaporation** rates of the compositions.

IT 50-00-0D, Formaldehyde, mixt. contg. 56-23-5D, Carbon tetrachloride, mixt. contg. 60-29-7D, Diethyl ether, mixt. contg. 64-17-5D, Ethanol, mixt. contg. 67-56-1D, Methanol, mixt. contg. 67-64-1D, Acetone, mixt. contg. 67-66-3D, Chloroform, mixt. contg. 67-68-5D, Dimethyl sulfoxide, mixt. contg. 71-55-6D, 1,1,1-Trichloroethane, mixt. contg. 75-05-8D, Acetonitrile, mixt. contg. 75-07-0, Acetaldehyde, biological studies 75-09-2D, Methylene chloride, mixt. contg. 75-15-0D, Carbon disulfide, mixt. contg. 75-18-3D, Dimethyl sulfide, mixt. contg. 75-25-2D, Bromoform, mixt. contg. 78-70-6D, Linalool, mixt. contg. 78-79-5D, Isoprene, mixt. contg. 78-84-2D, Isobutyraldehyde, mixt. contg. 78-93-3D, 2-Butanone, mixt. contg. 78-94-4D, 3-Buten-2-one, mixt. contg. 79-01-6D, Trichloroethylene, mixt. contg. 79-09-4D, Propanoic acid, mixt. contg. 79-14-1D, Glycolic acid, mixt. contg. 79-33-4, L-Lactic acid, biological studies 79-42-5D, Thiolactic acid, mixt. contg. 87-69-4D, Tartaric acid, mixt. contg. 96-22-0D, 3-Pentanone, mixt. contg. 98-00-0D, Furfuryl alcohol, mixt. contg. 98-86-2D, Acetophenone, mixt. contg. 100-47-0D, Benzonitrile, mixt. contg. 100-52-7D, Benzaldehyde, mixt. contg. 106-35-4D, 3-Heptanone, mixt. contg. 106-44-5D, p-Cresol, mixt. contg. 107-87-9D, 2-Pentanone, mixt. contg. 108-10-1D, 4-Methyl-2-pentanone, mixt. contg. 108-88-3D, Toluene, mixt. contg. 109-87-5D, Dimethoxymethane, mixt. contg. 110-02-1D, Thiophene, mixt. contg. 110-43-0D, 2-Heptanone, mixt. contg. 110-81-6D, Diethyl disulfide, mixt. contg. 110-93-0D, 6-Methyl-5-hepten-2-one, mixt. contg. 111-13-7D, 2-Octanone, mixt. contg. 111-66-0D, 1-Octene, mixt. contg. 123-19-3D, 4-Heptanone, mixt. contg. 123-54-6D, 2,4-Pentanedione, mixt. contg. 123-72-8D, Butyraldehyde, mixt. contg. 124-11-8D, 1-Nonene, mixt. contg. 124-19-6D, Nonanal, mixt. contg. **124-38-9D**, Carbon dioxide, mixt. contg. 127-17-3D, Pyruvic acid, mixt. contg. 140-29-4D, Phenylacetonitrile, mixt. contg. 352-93-2D, Diethyl sulfide, mixt. contg. 431-03-8D, 2,3-Butanedione, mixt. contg. 502-56-7D, 5-Nonanone, mixt. contg. 504-20-1, Phorone 513-86-0D, 3-Hydroxy-2-butanone, mixt. contg. 534-22-5D, 2-Methylfuran, mixt. contg. 545-06-2D, Trichloroacetonitrile, mixt. contg. 563-80-4D, 3-Methyl-2-butanone, mixt. contg. 565-61-7D, 3-Methyl-2-pentanone, mixt. contg. 565-69-5D, 2-Methyl-3-pentanone, mixt. contg. 589-38-8D, 3-Hexanone, mixt. contg. 591-78-6D, 2-Hexanone, mixt. contg. 592-76-7D, 1-Heptene, mixt. contg. 624-92-0D, Dimethyl disulfide, mixt. contg. 625-33-2D, 3-Penten-2-one, mixt. contg. 627-50-9D, Ethyl vinyl sulfide, mixt. contg. 693-54-9D, 2-Decanone, mixt. contg. 821-55-6D, 2-Nonanone, mixt. contg. 925-78-0D, 3-Nonanone, mixt. contg.

1629-58-9D, 1-Penten-3-one, mixt. contg. 2179-60-4D, Methyl propyl disulfide, mixt. contg. 3658-80-8D, Dimethyl trisulfide, mixt. contg. 4938-52-7D, 1-Hepten-3-ol, mixt. contg. 10326-41-7, D-Lactic acid, biological studies 18402-83-0D, E-3-Nonen-2-one, mixt. contg. 77281-54-0 **259734-99-1** 304441-46-1 304441-47-2

304441-48-3	304441-49-4	304441-50-7	304441-51-8	304441-52-9
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304441-68-7	304441-69-8	304441-70-1	304441-71-2	304441-72-3
304441-73-4	304441-74-5	304441-75-6	304441-76-7	304441-77-8
304441-78-9	304441-79-0	304441-80-3	304441-81-4	304441-82-5
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304441-93-8	304441-94-9	304441-95-0	304441-96-1	304646-90-0

(mosquito attractant)

mixture of

CO_2 + $CH_3-\underset{|}{\overset{OH}{CH}}-CH_3$

=> d ibib abs hitstr l32 1

L32 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:165454 HCAPLUS

DOCUMENT NUMBER: 128:177243

TITLE: Repellents for ants

INVENTOR(S): Vander Meer, Robert K.; Banks, William A.; Lofgren, Clifford S.

PATENT ASSIGNEE(S): United States Dept. of Agriculture, USA

SOURCE: U.S., 16 pp. Cont.-in-part of U.S. Ser. No. 235,848, abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5721274	A	19980224	US 1995-580904	19951229
US 5587401	A	19961224	US 1995-471354	19950606

PRIORITY APPLN. INFO.:

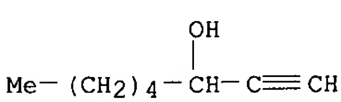
US 1992-925685	B2	19920807
US 1994-235848	B2	19940429
US 1994-286111	A3	19940804

AB A method has been discovered for repelling ants by treating objects or areas with: (a) C6 to C8 carboxylic acid(s); (b) C6 to C14 alc(s).; (c) ester(s) reaction product(s) of (a) and (b) or an ester which is a reaction product of the repellents and other carboxylic acids or alcs.; (d) C6 to C11 carboxylic acid ester(s); (e) C6 to C14 ketone(s); (f) C6 to C14 aldehyde(s); or (g) mixts. thereof.

IT **818-72-4**, 1-Octyn-3-ol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(ant repellent)

RN 818-72-4 HCAPLUS

CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



=> d ibib abs hitstr l32 2

L32 ANSWER 2 OF 8 HCAPLUS

ACCESSION NUMBER: 1995:373299 HCAPLUS
DOCUMENT NUMBER: 122:183508
TITLE: Structure, stereochemistry, and thermal isomerization of the male sex pheromone of the longhorn beetle Anaglyptus subfasciatus
AUTHOR(S): Leal, Walter S.; Shi, Xiongwei; Nakamuta, Kiyoshi; Ono, Mikio; Meinwald, Jerrold
CORPORATE SOURCE: Dep. of Chem., Cornell Univ., Ithaca, NY, 14853, USA
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (1995), 92(4), 1038-42
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English

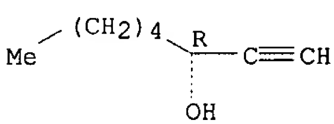
AB Male-released sex pheromone constituents of the longhorn beetle A. subfasciatus are identified by GC-MS and GC-Fourier transform IR as a 7:1 M mixt. of 3-hydroxy-2-hexanone and 3-hydroxy-2-octanone. These 2 compds. undergo thermal isomerization during GC analyses to give the corresponding 2-hydroxy-3-alkanones. Comparison of GC retention times of the natural products with those of synthesized enantiomerically pure compds. revealed that both semichems. have (R)-stereochem. These abs. configurations were confirmed by comparisons of the (R)-methoxy(trifluoromethyl)phenylacetic acid esters of **insect**-derived and synthetic samples.

IT **32556-70-0P 37911-28-7P**, (.+-.)-1-Octyn-3-ol
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(structure and stereochem. and thermal isomerization of male sex pheromone of longhorn beetle)

RN 32556-70-0 HCAPLUS

CN 1-Octyn-3-ol, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 37911-28-7 HCAPLUS

=> d ibib abs hitstr l32 3

L32 ANSWER 3 OF 8 HCAPLUS

ACCESSION NUMBER: 1994:210831 HCAPLUS
DOCUMENT NUMBER: 120:210831
TITLE: Carboxylic acids and alcohols as ant repellents.
INVENTOR(S): Vander, Meer Robert K.; Banks, William A.; Lofgren, Clifford S.
PATENT ASSIGNEE(S): United States Department of Agriculture, USA
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9403058	A1	19940217	WO 1993-US5905	19930618
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5648390	A	19970715	US 1994-286111	19940804
US 5587401	A	19961224	US 1995-471354	19950606

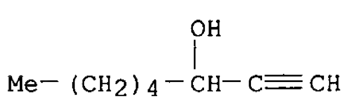
PRIORITY APPLN. INFO.: US 1992-925685 A 19920807
US 1994-286111 A3 19940804

AB Ant repellents comprise C6-8 carboxylic acids, C6-14 alcs., their mutual esters , C6-11 carboxylic acid esters and/or C6-14 ketones. Octanoic acid repelled Solenopsis invicta in olfactometer expts.

IT **818-72-4**, 1-Octyn-3-ol
RL: BIOL (Biological study)
(ant repellent)

RN 818-72-4 HCAPLUS

CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



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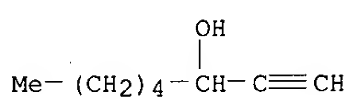
L32 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:611627 HCAPLUS
DOCUMENT NUMBER: 113:211627
TITLE: Oxidation of alcohols with electrolytic manganese dioxide. Its application for the synthesis of **insect** pheromones
AUTHOR(S): Tsuboi, Sadao; Ishii, Naomi; Sakai, Takashi; Tari, Isao; Utaka, Masanori
CORPORATE SOURCE: Fac. Eng., Okayama Univ., Tsushima, 700, Japan
SOURCE: Bull. Chem. Soc. Jpn. (1990), 63(7), 1888-93
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:211627

AB Oxidn. of alcs. with electrolytic MnO_2 under mild conditions afforded aldehydes and ketones in good yields. The method was applied in the syntheses of cystophorene [(3E,5Z)-1,3,5-undecatriene] and a sex pheromone of the forest tent caterpillar [(5Z,7E)-5,7-dodecadien-1-ol].

IT **818-72-4**, 1-Octyn-3-ol
RL: RCT (Reactant)
(oxidn. of, by electrolytic manganese dioxide)

RN 818-72-4 HCAPLUS

CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



=> d ibib abs hitstr l32 5

L32 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2002 ACS

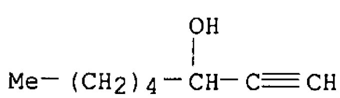
ACCESSION NUMBER: 1989:207795 HCAPLUS
DOCUMENT NUMBER: 110:207795
TITLE: Antennal responses of tsetse to analogs of the attractant 1-octen-3-ol
AUTHOR(S): Saini, R. K.; Hassanali, A.; Dransfield, R. D.
CORPORATE SOURCE: Int. Cent. Insect Physiol. Ecol., Nairobi, Kenya
SOURCE: Physiol. Entomol. (1989), 14(1), 85-90
CODEN: PENTDE; ISSN: 0307-6962
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Antennal movement responses of male Glossina morsitans morsitans to 12 analogs of the tsetse of olfactory attractant 1-octen-3-ol were investigated to det. their structure-activity relationships. Chemoreceptors which perceive this set of kairomones may not be highly specific. Activity is dependent on the length of the alkyl chain; also homologs with odd alkyl chains such as 3-buten-2-ol, 1-hexen-3-ol and 1-octen-3-ol evoked higher antennal responses than homologs with even alkyl chains such as 1-nonen-3-ol, 1-hepten-3-ol and 1-penten-3-ol. Comparison of the activities of 8 carbon structural variants of 1-octen-3-ol showed that the structural requirements for activity of the functional end of the mol. may not be rigid; thus, 1-octyn-3-ol elicited relatively high responses. However, low responses to 1-octene and 3-octanol showed that both the .pi. electron system as well as the oxygen function are important for activity. Lab. bioassay findings indicate that compds. such as 1-octyn-3-ol, 3-buten-2-ol, allyl alc. and 1-octen-3-one which evoke antennal responses 2-3 times greater than the control have attractive properties and preliminary field investigations show that 3-buten-2-ol and allyl alc. significantly increase trap catches.

IT **818-72-4**, 1-Octyn-3-ol
RL: BIOL (Biological study)
(antenna responses of tsetse **fly** to)

RN 818-72-4 HCAPLUS

CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



=> d ibib abs hitstr l32 6

L32 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:590633 HCAPLUS
DOCUMENT NUMBER: 101:190633
TITLE: Asymmetric synthesis via axially dissymmetric molecules. 7. Synthetic applications of the enantioselective reduction by binaphthol-modified lithium aluminum hydride reagents
AUTHOR(S): Noyori, R.; Tomino, I.; Yamada, M.; Nishizawa, M.
CORPORATE SOURCE: Dep. Chem., Nagoya Univ., Nagoya, 464, Japan
SOURCE: J. Am. Chem. Soc. (1984), 106(22), 6717-25
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English

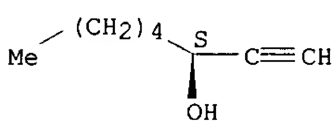
AB The redn. of prochiral carbonyl substrates with the chiral binaphthol-modified LiAlH4 reagents provides an effective means for prepg. alc. products of high optical purity. The reaction is applicable to a variety of structurally diverse unsatd. carbonyl compds. such as arom. ketones, acetylenic ketones, olefinic ketones and aldehydes, etc. Either of the antipodes is obtainable in a predictable manner by choosing the handedness of the auxiliary binaphthol ligand. The utility is exemplified by the efficiently stereocontrolled synthesis of prostaglandin intermediates, some **insect** pheromones, chiral primary terpenic alcs., optically active styrene oxide, etc.

IT **32556-71-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 32556-71-1 HCAPLUS

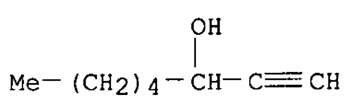
CN 1-Octyn-3-ol, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> d ibib abs hitstr l32 7

L32 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:582085 HCAPLUS
DOCUMENT NUMBER: 97:182085
TITLE: Highly stereocontrolled synthesis of (2E,4Z)-dienoic esters with alumina catalyst. Its application to total syntheses of flavor components and **insect** pheromones
AUTHOR(S): Tsuboi, Sadao; Masuda, Toshihide; Takeda, Akira
CORPORATE SOURCE: Sch. Eng., Okayama Univ., Tsushima, 700, Japan
SOURCE: J. Org. Chem. (1982), 47(23), 4478-82
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thermolysis of RC:C:CCH2CO2R1 (R = Me, Et, Pr, hexyl, octyl, nonyl, R1 = Me; R = Pr, pentyl, R1 = Et) in C6H6 with Al2O3 catalyst gave (2E,4Z)-RCH:CHCH:CHCO2R1 in 57-87% yields with 91-100% stereoselectivity. The mechanism of this stereocontrolled rearrangement was discussed and illustrated. This synthetic approach to (2E,4Z)-dienoates was adapted to the simple synthesis of several natural products such as Et (2E,4Z)-decadienoate, (2E,4Z)-decadienal, (2E,4Z)-heptadienal, (7E,9Z)-dodecadienyl acetate, and bombykol.
IT **818-72-4**
RL: RCT (Reactant)
(reaction of, with tri-Et orthoacetate)
RN 818-72-4 HCAPLUS
CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



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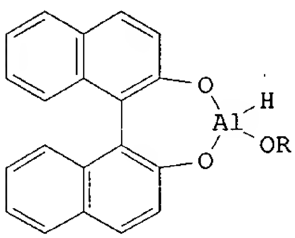
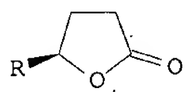
L32 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:406408 HCAPLUS
DOCUMENT NUMBER: 95:6408
TITLE: Asymmetric synthesis via axially dissymmetric molecules. Part 4. Highly enantioselective reduction of alkynyl ketones by a binaphthol-modified aluminum hydride reagent. Asymmetric synthesis of some **insect** pheromones
AUTHOR(S): Nishizawa, M.; Yamada, M.; Noyori, R.
CORPORATE SOURCE: Dep. Chem., Nagoya Univ., Nagoya, 464, Japan
SOURCE: Tetrahedron Lett. (1981), 22(3), 247-50
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



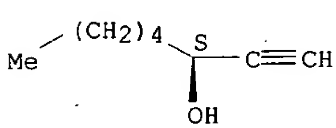
I



II

AB Eight alkynyl ketones were reduced in good yields to chiral alcs. by an Al hydride-binaphthyl complex I (R = Me, Et), prepd. in situ from LiAlH4, ROH, and 2,2'-dihydroxy-1,1'-binaphthyl. E.g., HC.tplbond.CCO(CH2)4Me with S-I (R = Me) (THF, -100.degree., 1 h; then -78.degree., 2 h) gave 87% S-HC.tplbond.CCH(OH)(CH2)4Me. The Japanese beetle and rove beetle pheromones R-II [R = (Z)-CH:CH(CH2)7Me] and S-II [R = (CH2)7Me], resp., were prepd. by this method.
IT **32556-71-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by asym. redn. of ketone with binaphthol-aluminum hydride complex)
RN 32556-71-1 HCAPLUS
CN 1-Octyn-3-ol, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> d ind 8
L33 HAS NO ANSWERS
L1 131 SEA FILE=HCAPLUS ABB=ON PLU=ON NOLEN J?/AU

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L3        260 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KLINE D?/AU
L4        396 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3)
L5         13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND MOSQUIT?
L6          7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND ATTRACT?
L7        132 SEA FILE=REGISTRY ABB=ON  PLU=ON  (3391-86-4/BI OR 124-38-9/BI
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              304441-92-7/BI OR 304441-93-8/BI OR 304441-94-9/BI OR 304441-95
              -0/BI OR 304441-96-1/BI OR 304646-90-0/BI OR 352-93-2/BI OR
              3658-80-8/BI OR 431-03-8/BI OR 4938-52-7/BI OR 50-00-0/BI OR
              502-56-7/BI OR 504-20-1/BI OR 51-03-6/BI OR 513-86-0/BI OR
              534-22-5/BI OR 545-06-2/BI OR 56-23-5/BI OR 563-80-4/BI OR
              565-61-7/BI OR 565-69-5/BI OR 589-38-8/BI OR 591-78-6/BI OR
              592-76-7/BI OR 60-29-7/BI OR 624-92-0/BI OR 625-33-2/BI OR
              627-50-9/BI OR 64-17-5/BI OR 67-56-1/BI OR 67-64-1/BI OR
              67-66-3/BI OR 67-68-5/BI OR 693-54-
L8          6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND L7
L9          7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 OR L8
L11      4732 SEA FILE=REGISTRY ABB=ON  PLU=ON  C=8 AND O=1 AND (C AND H AND
              O)/ELS AND 3/ELC.SUB NOT RSD/FA
L12       362 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11 AND "3-OL"
L13        28 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11 AND "3-HYDROXY"
L14       386 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L12 OR L13)
L17         1 SEA FILE=REGISTRY ABB=ON  PLU=ON  CARBON DIOXIDE/CN
L23         4 SEA FILE=REGISTRY ABB=ON  PLU=ON  "1-OCTYN-3-OL" AND L14
L24       384 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23
L25       384 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L24 NOT L9
L28    132764 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17
L29         2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 AND L28
L30    183388 SEA FILE=HCAPLUS ABB=ON  PLU=ON  INSECT? OR FLY OR FLIES
L31         9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 AND L30
L32         8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 NOT L29
L33         0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L32 AND (L28 OR CO2 OR CARBON
              DIOXIDE)
```

```
=>  d ind l32 8

L32  ANSWER 8 OF 8  HCAPLUS  COPYRIGHT 2002 ACS
CC   23-7 (Aliphatic Compounds)
     Section cross-reference(s): 12, 22, 78
ST   asym redn alkynyl ketone; binaphthol aluminum hydride redn ketone;
     propargyl alc chiral prepn cyclization; insect pheromone asym
     prepn; beetle Japanese rove pheromone alkynol
IT   Pheromones
     RL: RCT (Reactant)
        (of Japanese and rove beetles, alkynols, asym. synthesis of)
IT   Asymmetric synthesis and induction
        (of propargyl alcs., by redn. of ketones with binaphthol-aluminum
        hydride complex)
IT   Cyclocondensation reaction
        (of propargyl alcs., in beetle pheromone prepn.)
IT   Rove beetle
        (pheromone, laurolactone, synthesis of, by asym. redn. of alkynyl
        ketone)
IT   Japanese beetle
        (pheromone, tetradecenolactone, synthesis of, by asym. redn. of alkynyl
        ketone)
IT   Ketones, reactions
     RL: RCT (Reactant)
        (alkynyl, asym. redn. of, with binaphthol-aluminum hydride complex)
IT   Reduction
        (asym., of alkynyl ketones with binaphthol-aluminum hydride complex,
        propargyl alcs. by)
IT   Alcohols, preparation
        (propargylic, chiral, prepn. of, by asym. redn. of ketones with
        binaphthol-aluminum hydride complex)
IT   70945-92-5P   70981-93-0P   75766-18-6P   77851-81-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and asym. redn. by, of alkynyl ketones)
IT   72151-69-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and hydrogenation of, pheromone by)
IT   64726-91-6P   69830-92-8P   74327-00-7P   77889-09-9P   77889-10-2P
     77889-11-3P   77889-12-4P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
IT   32556-71-1P   70095-33-9P   77889-04-4P   77889-05-5P
     77889-06-6P   77889-07-7P   77889-08-8P   77943-78-3P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, by asym. redn. of ketone with binaphthol-aluminum hydride
        complex)
IT   74364-80-0P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn., acetylation and ozonolysis of)
IT   64-17-5, reactions   67-56-1, reactions
     RL: RCT (Reactant)
        (reaction of, with dihydroxybinaphthyl and lithium aluminum hydride,
        reducing agent by)
IT   18531-94-7   18531-99-2
     RL: RCT (Reactant)
        (reaction of, with lithium aluminum hydride and alc., reducing agent
        by)
IT   1119-58-0   5891-25-8   27593-19-7   28884-88-0   73501-40-3   76291-85-5
     77889-02-2   77889-03-3
```

RL: RCT (Reactant)
(redn. of, with chiral binaphthol-aluminum hydride complex, chiral alc. by)

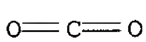
=> d ibib abs hitstr 1

L29 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:588254 HCAPLUS
DOCUMENT NUMBER: 133:319841
TITLE: Evaluation of Stomoxys calcitrans (Diptera: Muscidae) behavioral response to human and related odors in a triple cage olfactometer with insect traps
AUTHOR(S): Alzogaray, Raul A.; Carlson, David A.
CORPORATE SOURCE: Centro de Investigaciones de Plagas e Insecticidas (CIPEIN/CITEFA-CONICET-UNSAM), Villa Martelli, 1603, Argent.
SOURCE: Journal of Medical Entomology (2000), 37(3), 308-315
CODEN: JMENA6; ISSN: 0022-2585
PUBLISHER: Entomological Society of America
DOCUMENT TYPE: Journal
LANGUAGE: English

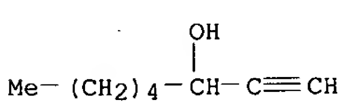
AB A triple cage olfactometer provided with insect traps was used for evaluating behavioral responses of Stomoxys calcitrans females to human skin and breath, CO2, and L-lactic acid analogs. After demonstrating there were no significant differences caused by cage location or time of day, 3 sets of 3 olfactometer tests were performed in a day, every 2 h beginning at 0900 h. When a human hand was used as attractant, the attraction (expressed as percentage of trapped flies) increased as a function of the time; an inverted U-shaped relationship between attractancy and air speed was obsd.; and variation in fly d. in the range 25-75 per cage did not affect the attraction response. When human breath was used as attractant the attraction increased linearly as a function of time and it was exhalation frequency dependent; when air flow was absent the highest response was obsd.; and 24- to 38-h-old flies were more attracted than younger and older ones. When CO2 was tested, activation and orientation and probing behavior were concn. dependent with flows ranging between 0.0001 and 0.038 L/s, but attraction was not. No attraction was obsd. with 10, 100, or 1000 .mu.g of compds. related to L-lactic acid and several synthetic human odors and related compds., although orientation was often obsd.

IT **124-38-9**, Carbon dioxide, biological studies **818-72-4**, 1-Octyn-3-ol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(odors from human breath and hand and carbon dioxide and lactate analogs effects on behavioral responses of stable fly Stomoxys calcitrans)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 818-72-4 HCAPLUS
CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS

=> d ibib abs hitstr 1

L29 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:588254 HCAPLUS
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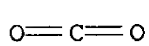
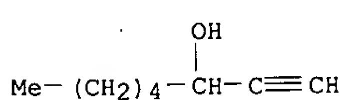
IT **124-38-9**, Carbon dioxide, biological studies **818-72-4**, 1-Octyn-3-ol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(odors from human breath and hand and carbon dioxide and lactate analogs effects on behavioral responses of stable fly Stomoxys calcitrans)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 818-72-4 HCAPLUS
CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS

=> d ibib abs hitstr 1

L29 ANSWER 1 OF 2 HCAPLUS

ACCESSION NUMBER: 2000:588254 HCAPLUS
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TITLE: Evaluation of Stomoxys calcitrans (Diptera: Muscidae) behavioral response to human and related odors in a triple cage olfactometer with insect traps
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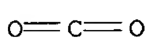
SOURCE: Journal of Medical Entomology (2000), 37(3), 308-315
CODEN: JMENA6; ISSN: 0022-2585
PUBLISHER: Entomological Society of America
DOCUMENT TYPE: Journal
LANGUAGE: English

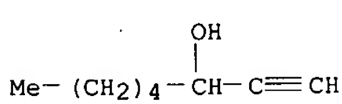
AB A triple cage olfactometer provided with insect traps was used for evaluating behavioral responses of Stomoxys calcitrans females to human skin and breath, CO_2, and L-lactic acid analogs. After demonstrating there were no significant differences caused by cage location or time of day, 3 sets of 3 olfactometer tests were performed in a day, every 2 h beginning at 0900 h. When a human hand was used as attractant, the attraction (expressed as percentage of trapped flies) increased as a function of the time; an inverted U-shaped relationship between attractancy and air speed was obsd.; and variation in fly d. in the range 25-75 per cage did not affect the attraction response. When human breath was used as attractant the attraction increased linearly as a function of time and it was exhalation frequency dependent; when air flow was absent the highest response was obsd.; and 24- to 38-h-old flies were more attracted than younger and older ones. When CO_2 was tested, activation and orientation and probing behavior were concn. dependent with flows ranging between 0.0001 and 0.038 L/s, but attraction was not. No attraction was obsd. with 10, 100, or 1000 .mu.g of compds. related to L-lactic acid and several synthetic human odors and related compds., although orientation was often obsd.

IT **124-38-9**, Carbon dioxide, biological studies **818-72-4**, 1-Octyn-3-ol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(odors from human breath and hand and carbon dioxide and lactate analogs effects on behavioral responses of stable fly Stomoxys calcitrans)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 818-72-4 HCAPLUS
CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS

=> d ibib abs hitstr l32 5

L32 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:207795 HCAPLUS
DOCUMENT NUMBER: 110:207795
TITLE: Antennal responses of tsetse to analogs of the attractant 1-octen-3-ol
AUTHOR(S): Saini, R. K.; Hassanali, A.; Dransfield, R. D.
CORPORATE SOURCE: Int. Cent. Insect Physiol. Ecol., Nairobi, Kenya
SOURCE: Physiol. Entomol. (1989), 14(1), 85-90
CODEN: PENTDE; ISSN: 0307-6962
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Antennal movement responses of male Glossina morsitans morsitans to 12 analogs of the tsetse of olfactory attractant 1-octen-3-ol were investigated to det. their structure-activity relationships. Chemoreceptors which perceive this set of kairomones may not be highly specific. Activity is dependent on the length of the alkyl chain; also homologs with odd alkyl chains such as 3-buten-2-ol, 1-hexen-3-ol and 1-octen-3-ol evoked higher antennal responses than homologs with even alkyl chains such as 1-nonen-3-ol, 1-hepten-3-ol and 1-penten-3-ol. Comparison of the activities of 8 carbon structural variants of 1-octen-3-ol showed that the structural requirements for activity of the functional end of the mol. may not be rigid; thus, 1-octyn-3-ol elicited relatively high responses. However, low responses to 1-octene and 3-octanol showed that both the .pi. electron system as well as the oxygen function are important for activity. Lab. bioassay findings indicate that compds. such as 1-octyn-3-ol, 3-buten-2-ol, allyl alc. and 1-octen-3-one which evoke antennal responses 2-3 times greater than the control have attractive properties and preliminary field investigations show that 3-buten-2-ol and allyl alc. significantly increase trap catches.

IT **818-72-4**, 1-Octyn-3-ol
RL: BIOL (Biological study)
(antenna responses of tsetse **fly** to)

RN 818-72-4 HCAPLUS

CN 1-Octyn-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)